Physician Workforce Issues

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Tomorrow's Doctors, Tomorrow's Cures

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Center for Workforce Studies

Learn
Serve
Lead

Wayne State University

March 9, 2007

Association of
American Medical Colleges

AAMC's 2006 Workforce Position

- Expand US MD enrollment by 30% by 2015
- Eliminate GME caps
- Expand NHSC by 1500 positions
- Increase the diversity of the workforce
- Leave specialty choice up to students

- Study strategies to address mal-distribution
- Examine options for assessing medical schools outside of the US targeted to Americans
- Support medical education in less developed parts of the world

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Cycles in Physician Workforce Policy

- **1920's – 1940's**: General concern regarding physician surplus
- **1950's –1970s**: Concern with physician shortages; federal policies to stimulate increased supply, particularly primary care
- **1980 – 2000**: Concern with potential surpluses and primary care/specialist mix; federal guidelines and encouragement to limit growth
- **2002 Onward**: Global consensus on future shortages under current system

How can we think about, monitor supply & demand more effectively?

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Challenges to Effective Physician Workforce Planning

- Very long time frames to change supply or distribution
- Uncertain impact of new medical technology
- Uncertain future organization, finance, delivery
- Difficulty in distinguishing demand vs. need
- Lack of good or consistent data

Who should/would be responsible?

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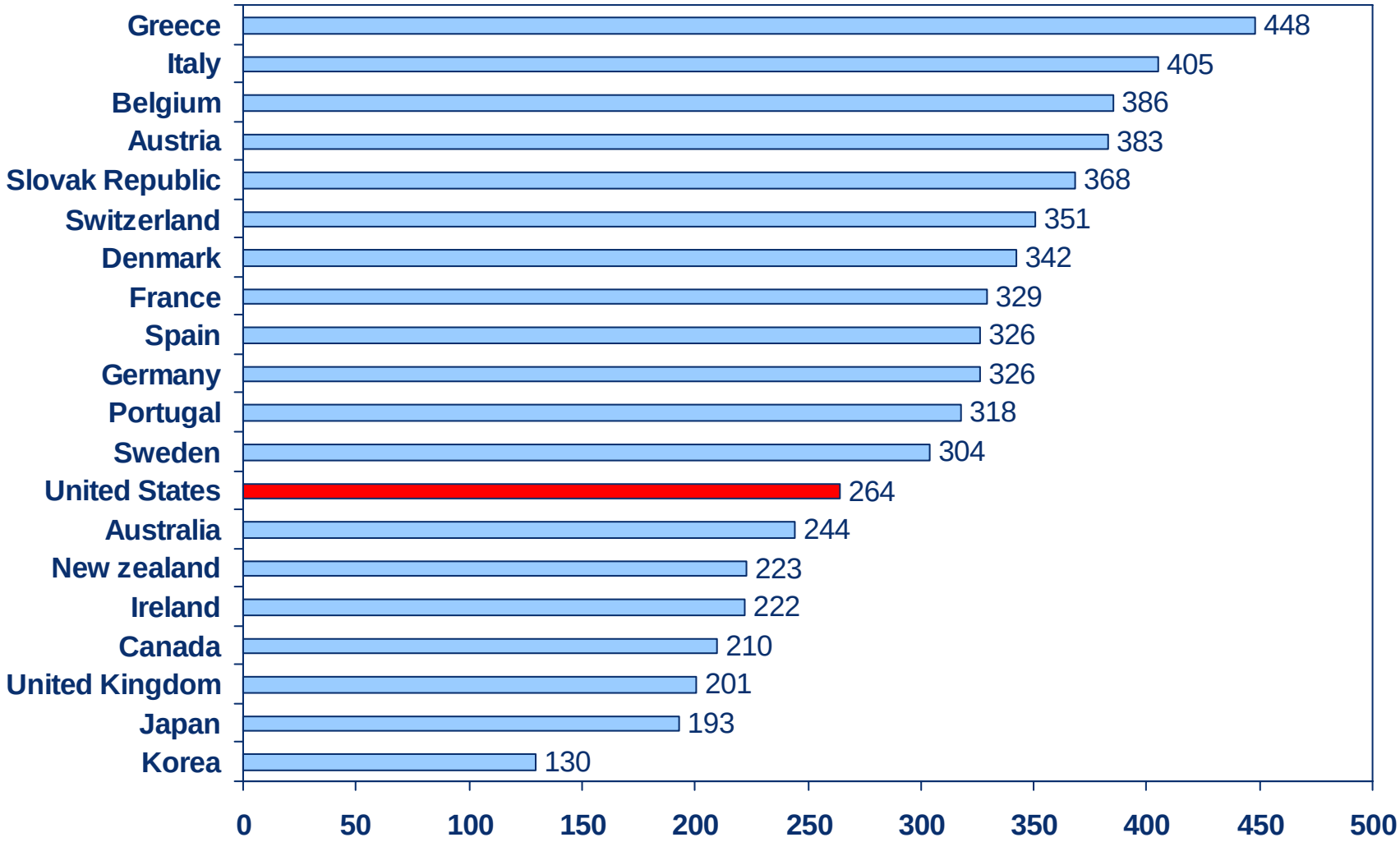
The Per Capita Physicians in the US and Other Countries

Physicians Per 100,000 (2000)



Source: The Supply of Physician Services in OECD Countries. OECD, Steven Simoens & Jeremy Hurst. Health Working Papers. 2006

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States Reporting Shortages

- **Nevada,** 2006
- **Arizona**, 2005
- **Georgia**, 2005
- **Kentucky**, 2005
- **Massachusetts**, 2005
- **Michigan**, 2005
- **Oregon**, 2005
- **California**, 2004
- **Mississippi**, 2004
- **North Carolina**, 2004
- **Wisconsin**, 2004
- **Texas**, 2002

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Specialties Reporting Shortages
(relative to “need” or “demand”)

- **Family Medicine,** 2006
- **Allergy and Immunology**, 2004
- **Cardiology**, 2004
- **Dermatology**, 2004
- **Medical Genetics**, 2004
- **Radiology**, 2004
- **Geriatric Medicine**, 2003
- **Neurosurgery**, 2003
- **Psychiatry**, 2003
- **Critical Care**, 2006
- **Pediatric Subspecialties**, 2000
- **Endocrinology**, 2002

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Factors Influencing Future Supply

Total Numbers

- Medical school production (MD, DO)
- International migration and IMG policies
- Aging of physician workforce & retirement

- Gender and generational differences
- Lifestyle choices
- Changing practice patterns
- Productivity changes (i.e. NPs/PAs, IT)

Impacts "effective" supply

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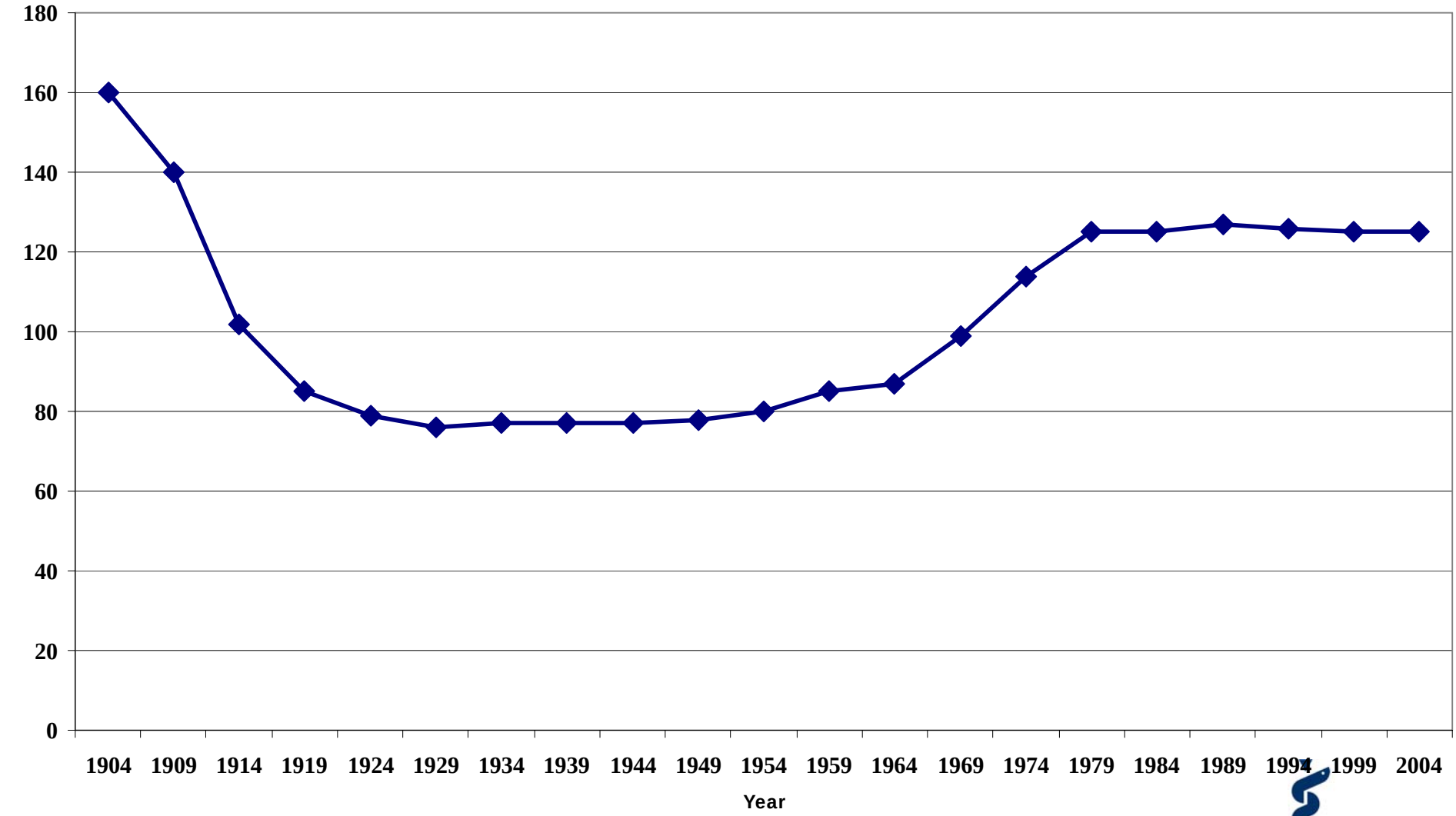
U.S. Medical Schools, 1904—2004



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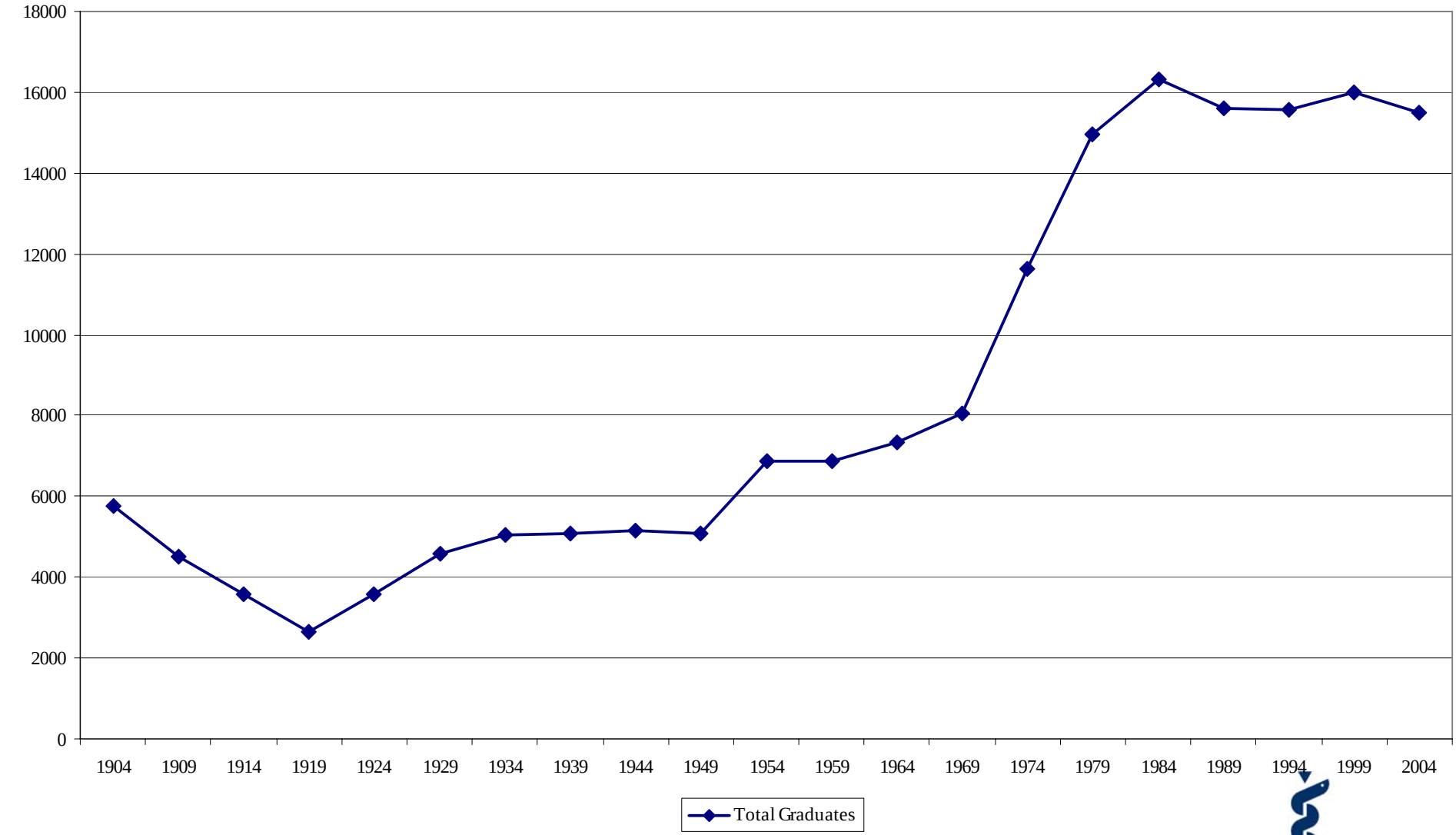
Medical School Graduates, 1904—2004



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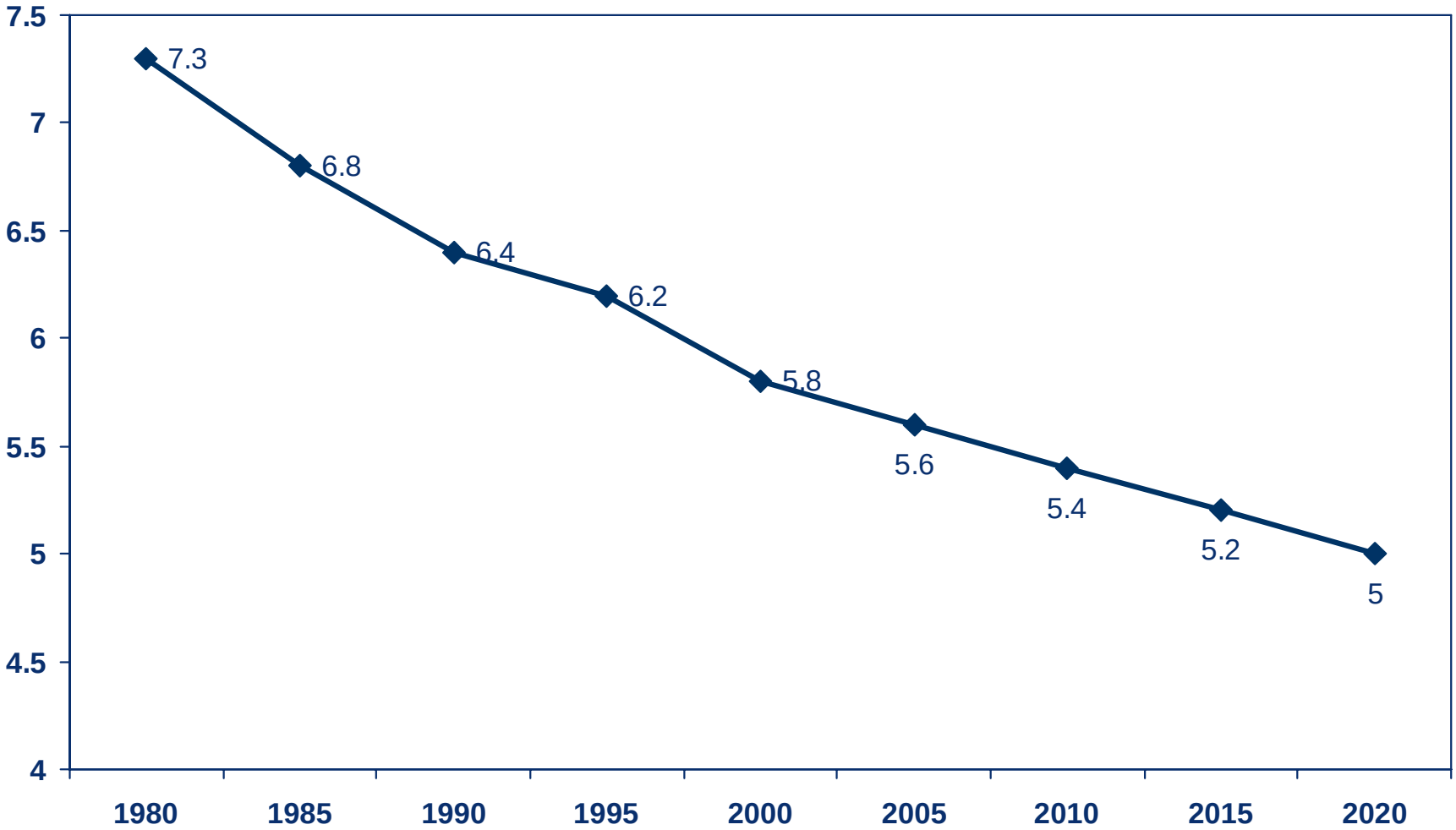
Per-Capita MD Enrollment Has Fallen Since 1980

First Year Enrollment per 100,000



Source: AAMC Data Book; US Census Bureau.

Prepared by Center for Workforce Studies, AAMC, Feb 2006.

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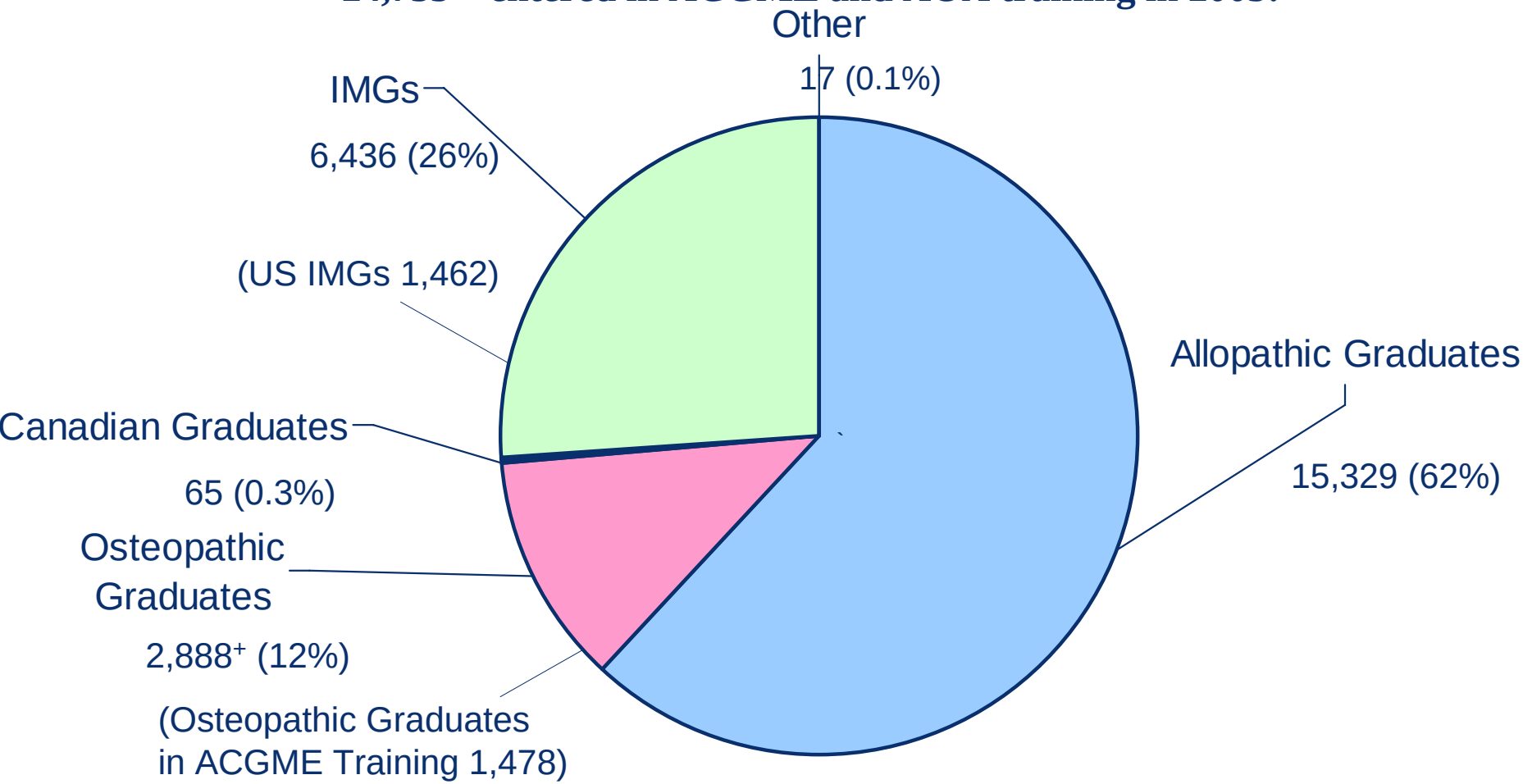
US MDs Are Less Than 2/3 of Physicians Entering Graduate Medical Education, 2005

24,735* entered in ACGME and AOA training in 2005:



* Includes both allopathic and osteopathic residents.

\+ Number of DO graduates projected by AACOM. All the graduates are assumed to have entered ACGME or AOA GME.

Sources: AMA and AACOM, 2004 Annual Report on Osteopathic Medical Education

Prepared by the AAMC Center for Workforce Studies

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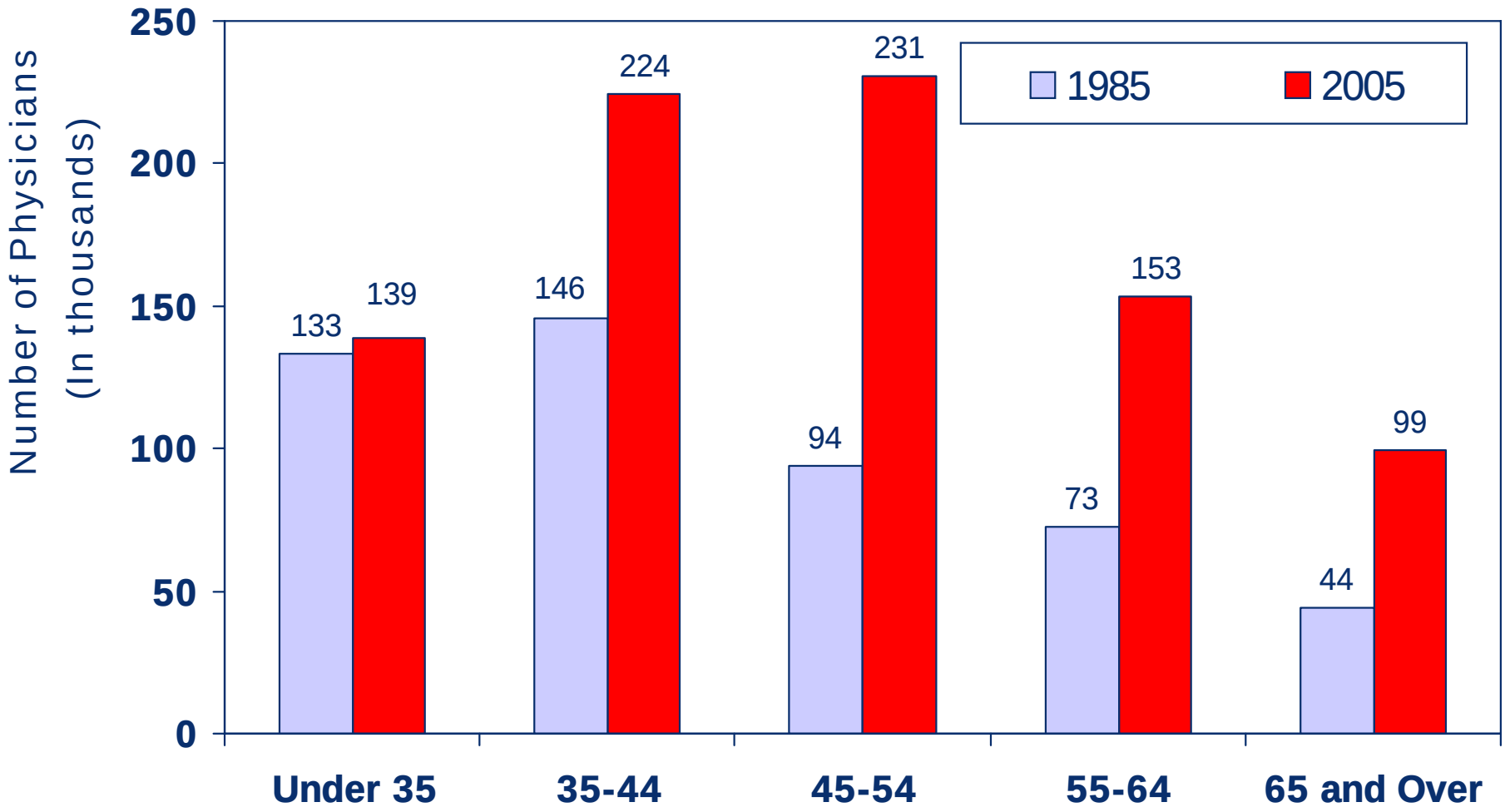
Physician Workforce Age Distribution: 1985 and 2005



Source: AMA PCD for 1985 data; AMA Masterfile for 2005 data. Active physicians include residents/fellows
NOTE: 1985 data excludes 24,000 DOs.
Prepared by AAMC Center for Workforce Studies, Mar 2006

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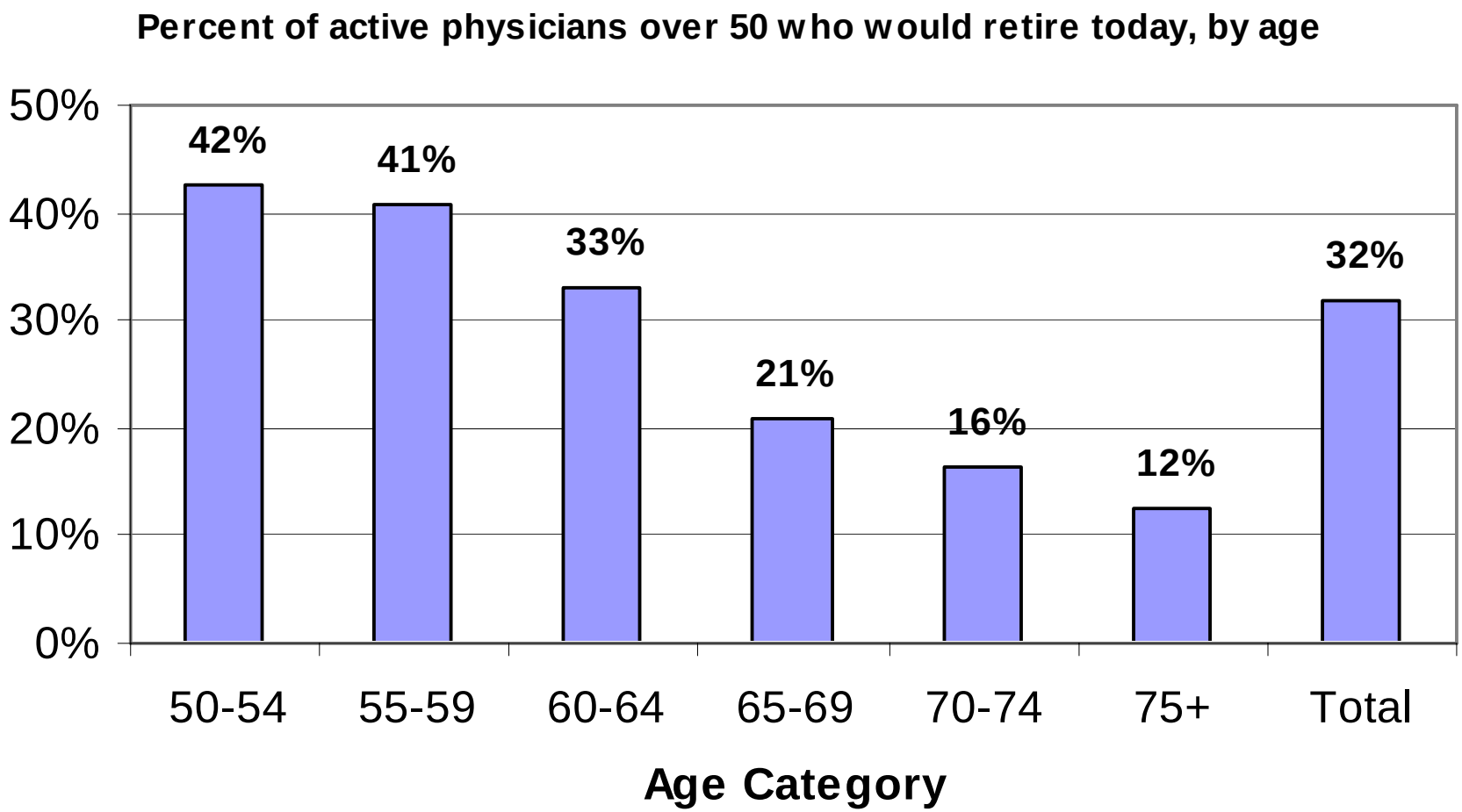
One out of three would retire today if they could afford to



Source: 2006 AAMC Survey of Physicians 50 and Older

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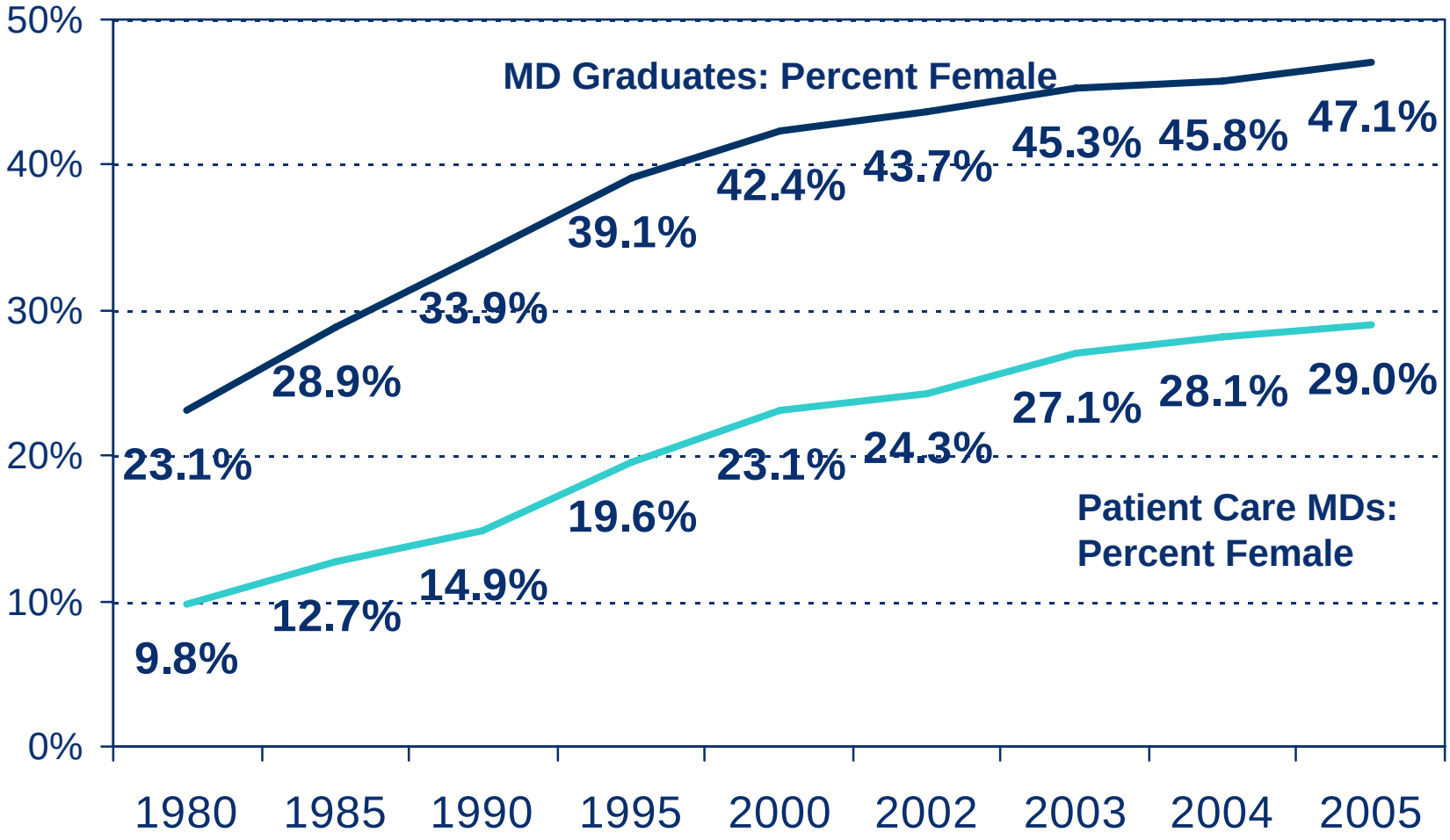
The Percent of Physicians That are Female Is Rising Steadily



Source: AAMC Facts; AMA PCD 2006 Edition.
Prepared by AAMC Center for Workforce Studies, Jan 2006

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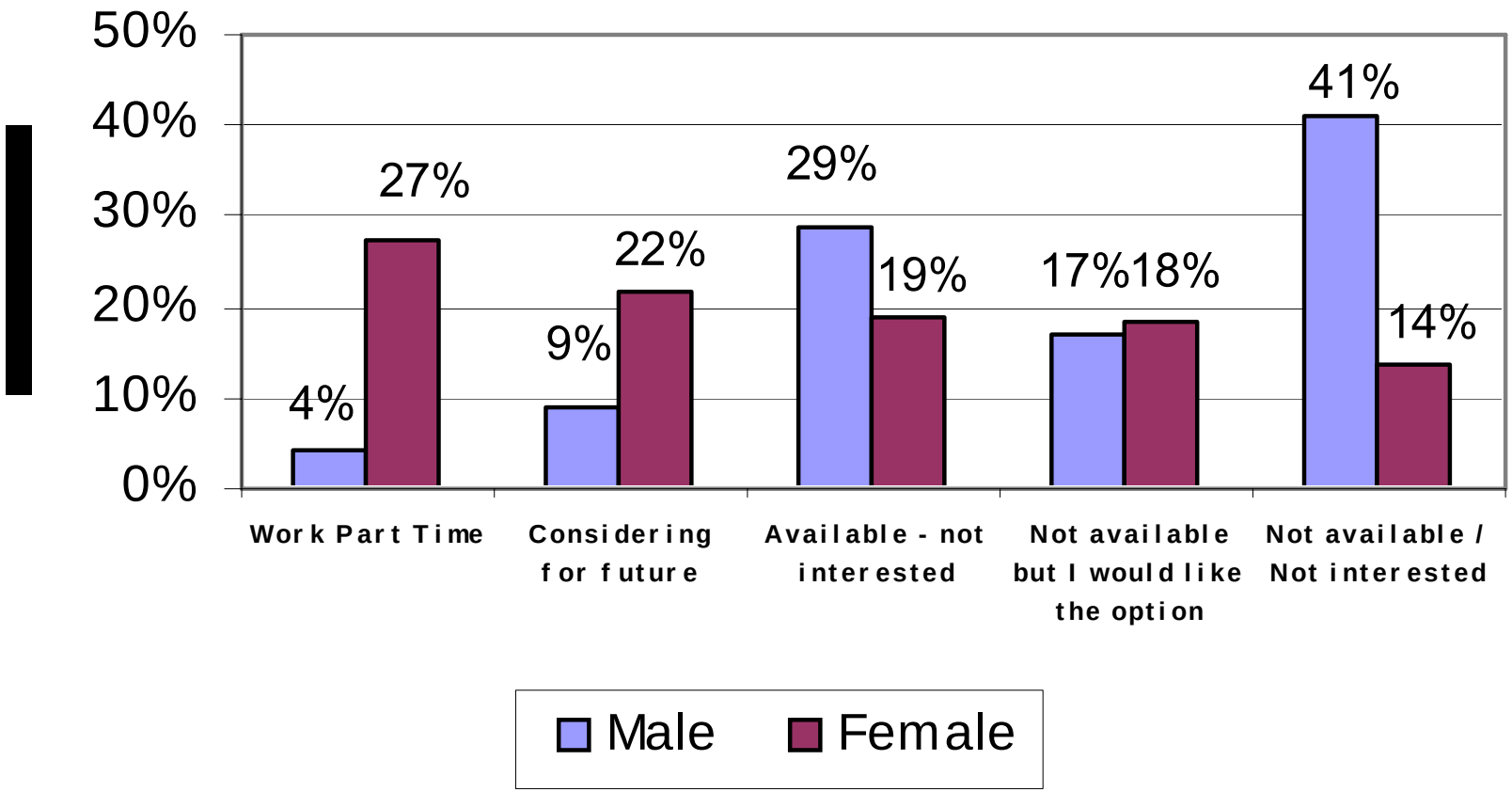
Women more likely to work part time and more interested in part time work



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Time for Family/Personal Life Most Important Factor in Desirable Position For Physicians Under 50

	% Very Important
Time for family/personal	69%
Adequate support staff and services	41%
Long term income potential	39%
Practice income	37%
Health insurance coverage	34%
Flexible scheduling	33%
No or very limited on-call	28%
Adequate patient volume	28%
Opportunity to advance professionally	27%

Source: **2006 AAMC Survey of Physicians Under 50 (preliminary data)**

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Not interested in working more hours to earn more money

Willing to work longer hours for more pay

66% NO

Would reduce hours if could afford to

80% YES

Currently working/interested in part-time hours

43% YES

Source: **2006 AAMC Survey of Physicians Under 50 (preliminary data)**

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Factors Affecting Demand for Physicians

- Aging & growth of population
- Wealth of the nation
- Public expectations
- Growth in non-physician clinicians

More Predictable

- New medical interventions
- Evolution of care delivery
- Cost containment efforts

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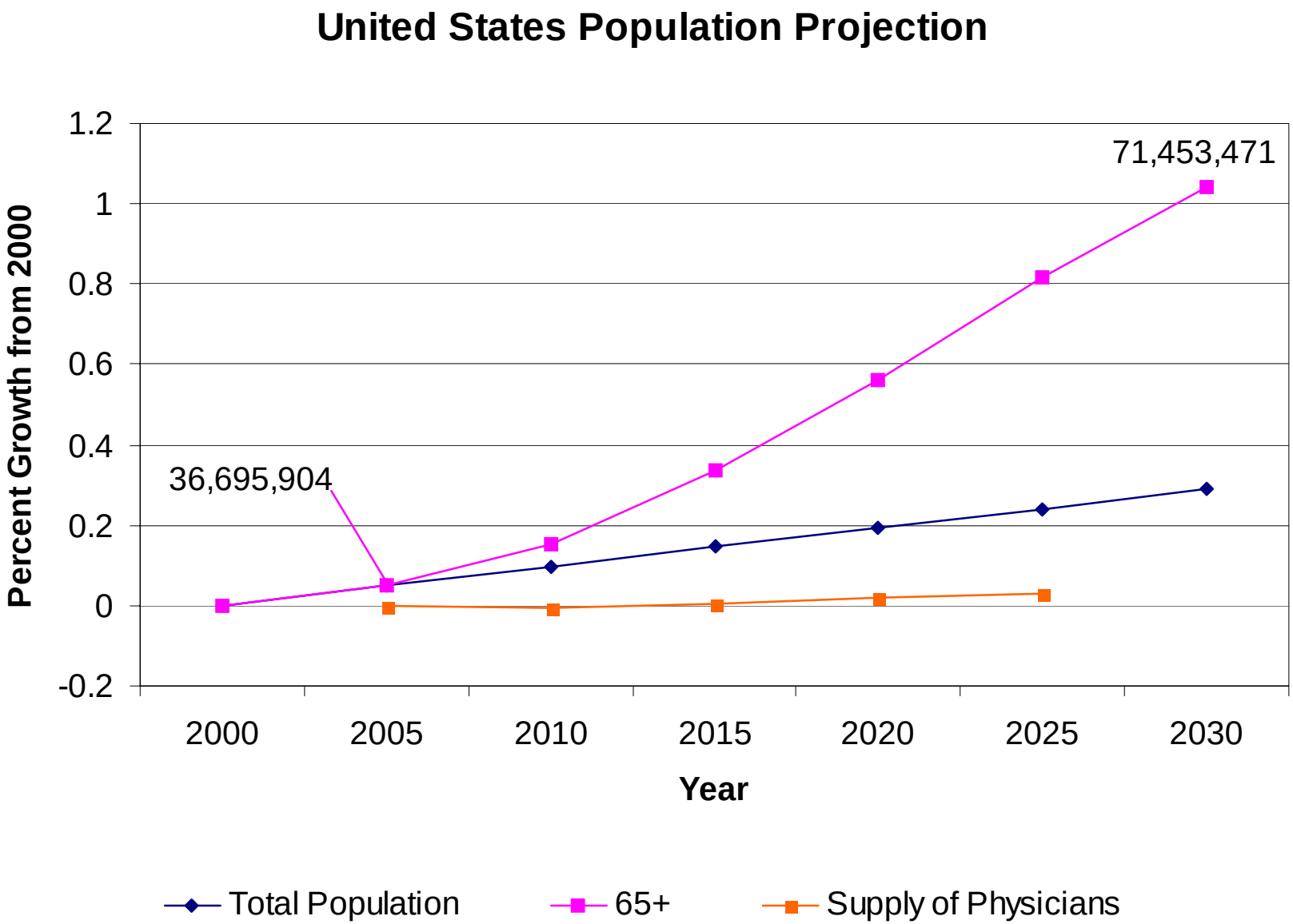
Population Over Age 65 Doubles by 2030



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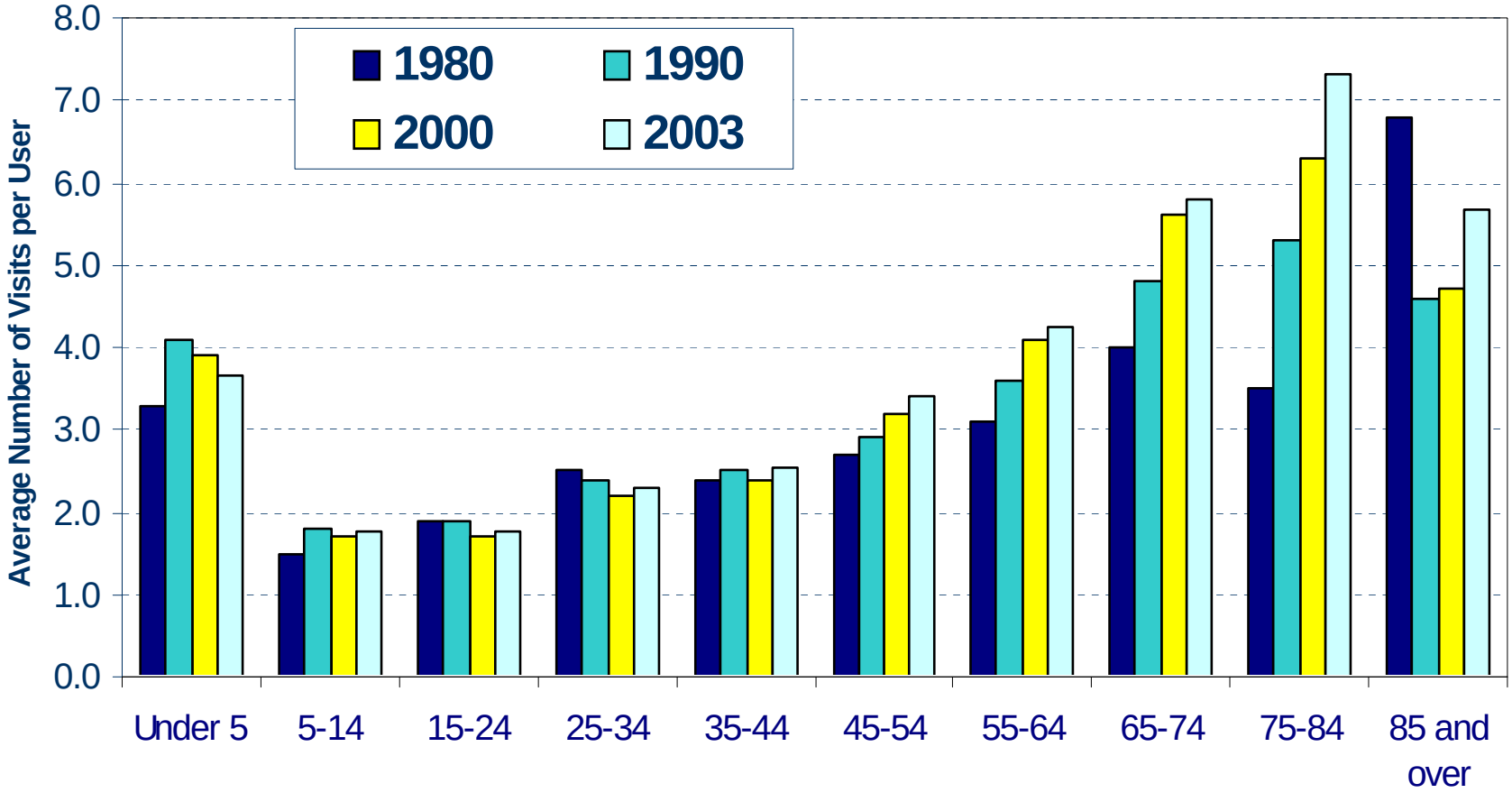
Utilization of Services Rises with Age and Time



Source: NAMCS, 1980, 1990, 2000 & 2003
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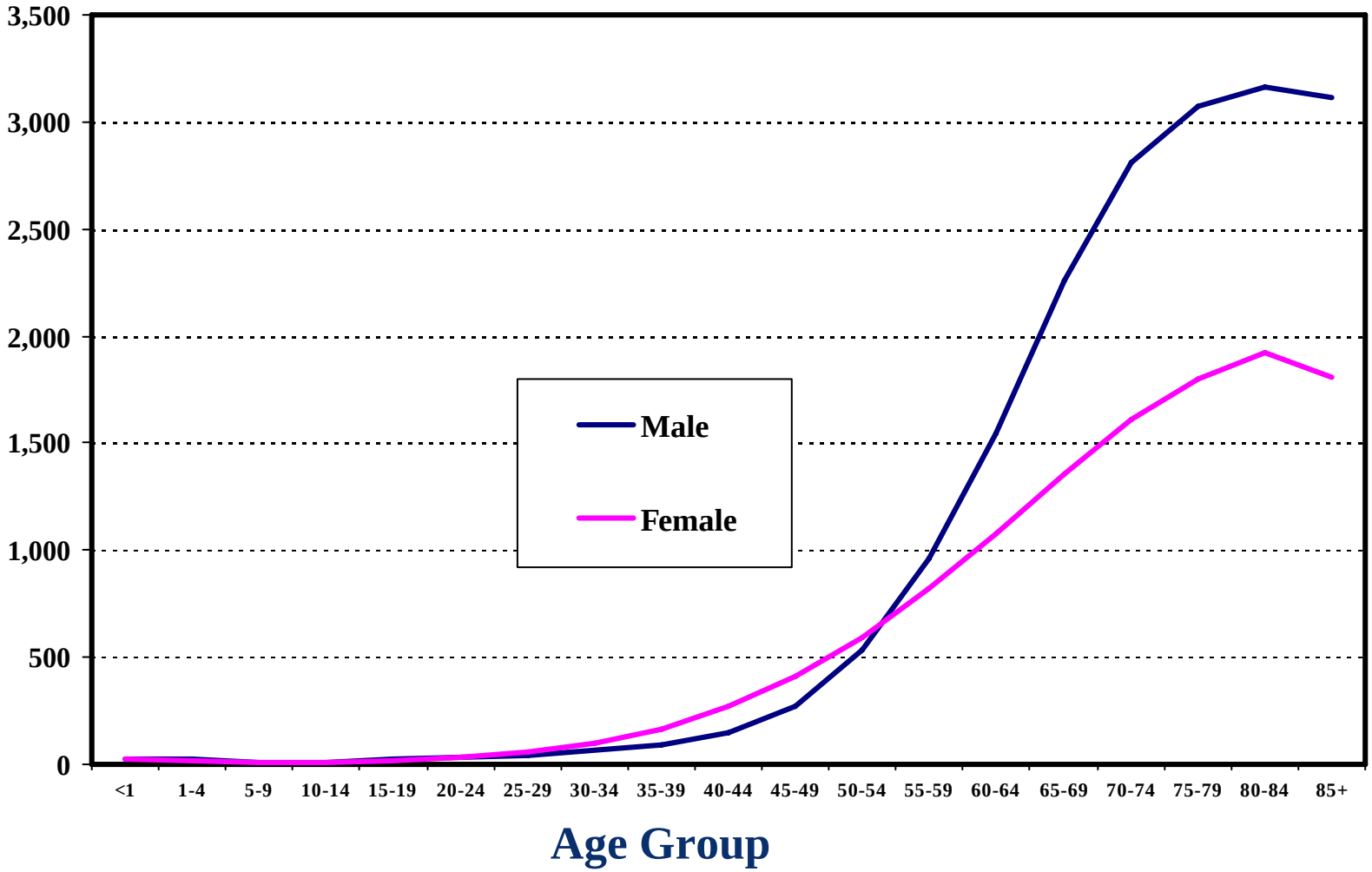
Age-Specific Cancer Incidence Rates/100,000, 2000



Source: CDC, Age-Specific Invasive Cancer Incidence Rates by Primary Site and Race, United Sates (U.S. Cancer Statistics, 2000).

Prepared by AAMC Center for Workforce Studies

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Future Supply and Demand: The Bottom Line

The gross physician to population ratio in the US will peak around 2020, even with expansion

Effective supply of physicians likely to be lower as physicians work fewer hours

The baby boom generation – with higher expectations - will begin to turn 70 years old in 2016, increasing per capita demand

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International Medical School Graduates (IMGs): Why the Concern Now?

- International concern about brain drain from less-developed to more-developed countries.
- Global shortage of human resources in health.
- Growth of off-shore for-profit schools primarily for US citizens but outside of US accrediting systems (15 new schools in the past decade)
- 1,500 US-IMGs entering GME annually.
- As many as 2,500 US-citizens each year now enter a foreign medical school.

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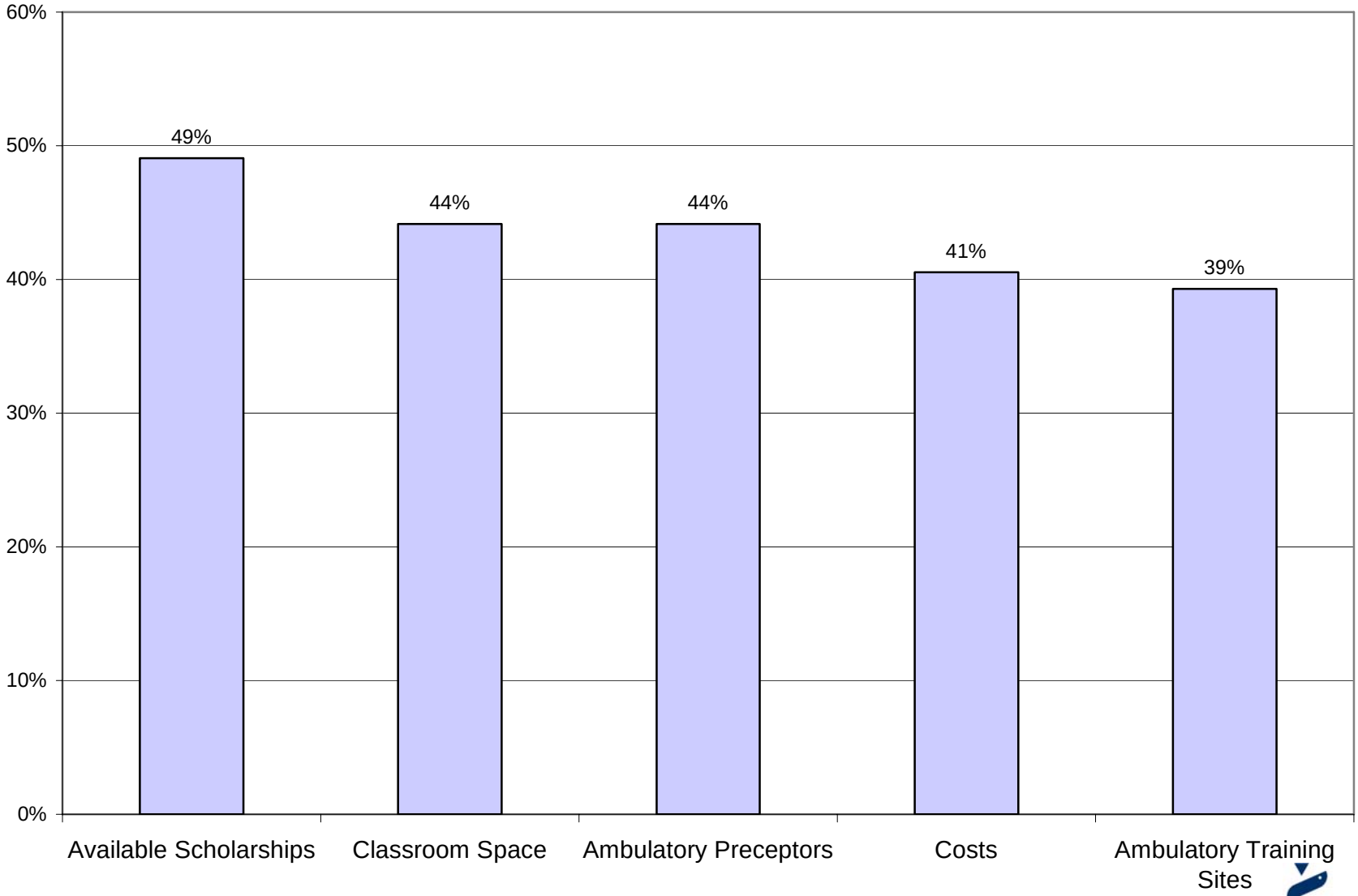
Barriers to Expansion: 2006 Deans Survey



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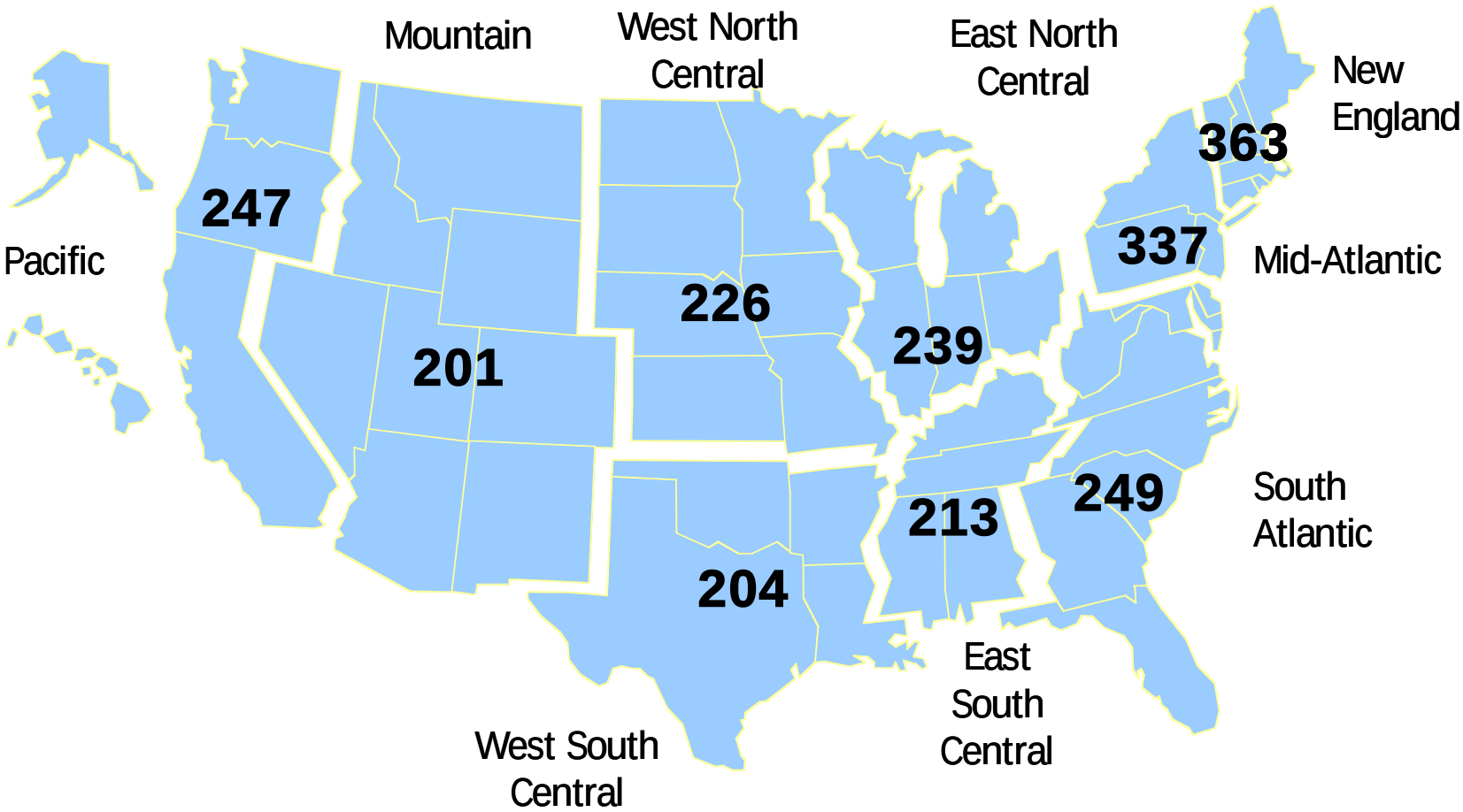
Active Physicians per 100,000



All Workforce Is Local

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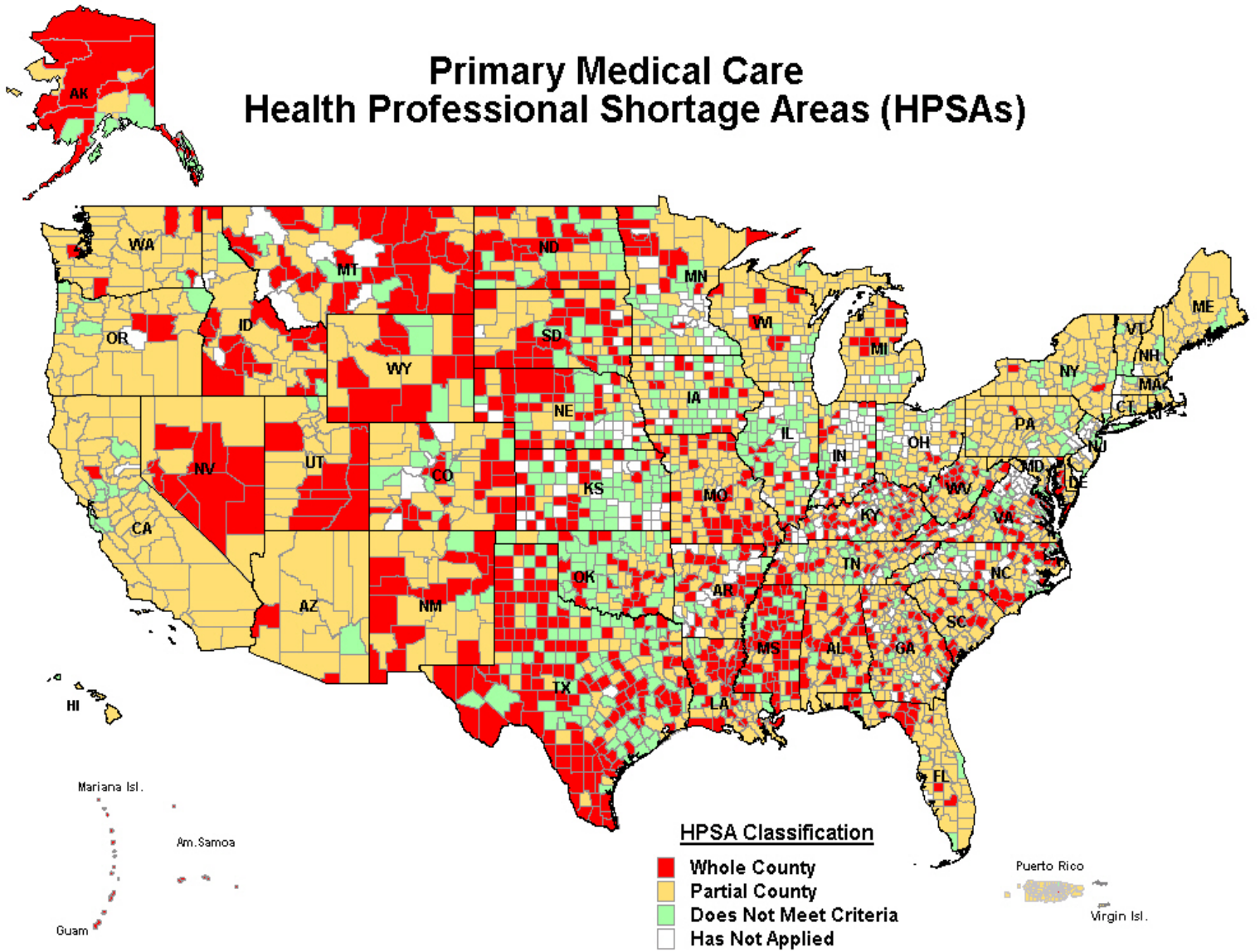
Unmet Need Already Exists--30 million People Live in Federally Designated Shortage Areas



Source: HRSA/AAFP

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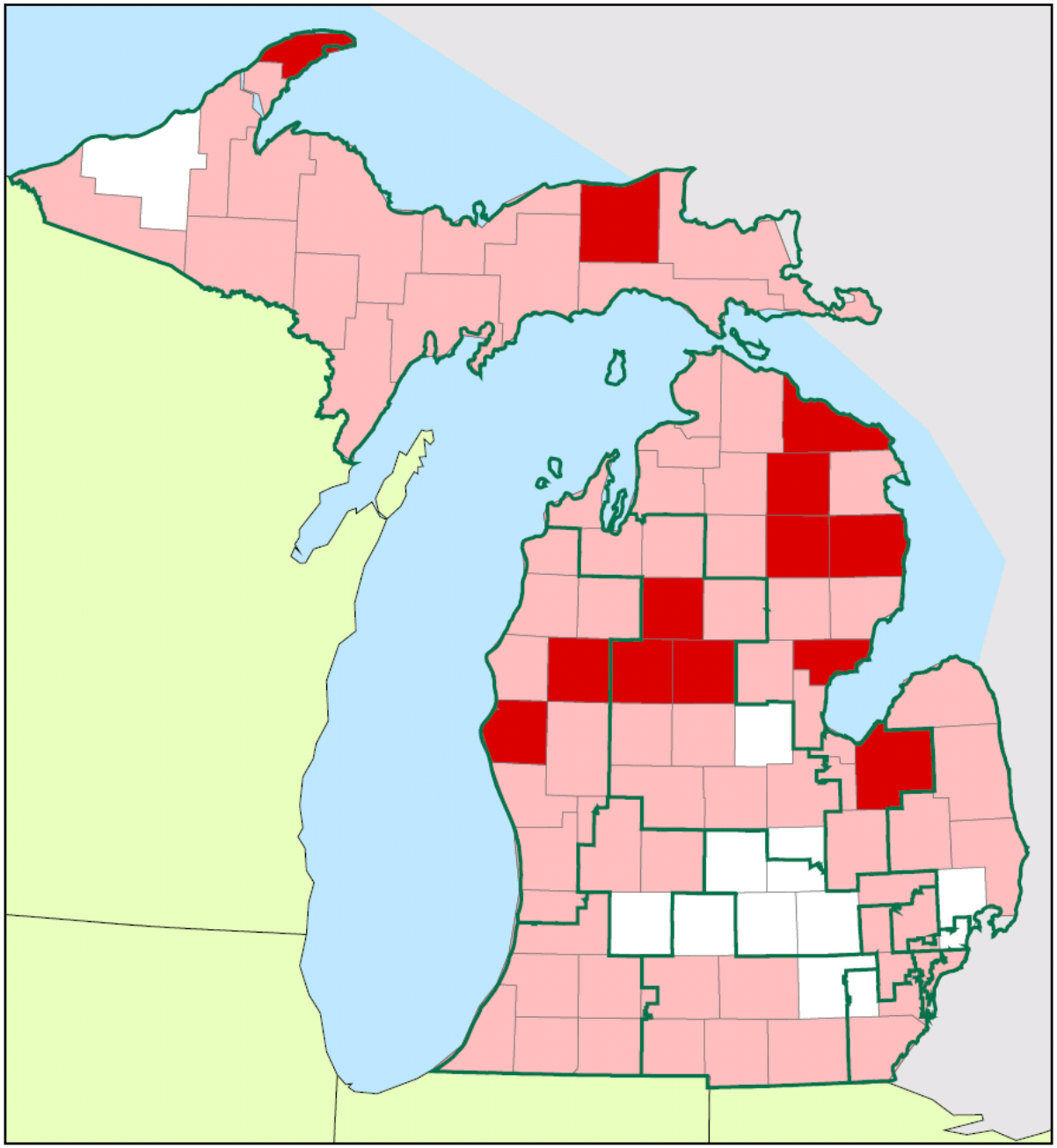
MICHIGAN: PRIMARY CARE HEALTH PROFESSIONAL SHORTAGE AREAS



Full Primary Care HPSA

Partial Primary Care HPSA

Not a Primary Care HPSA

Prepared by the Robert Graham Center: Policy Studies in Family Medicine and Primary Care

Data Source: 2003 Area Resource File (U.S. Department of Health and Human Services)

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Number of Active Physicians in Michigan by Gender

	US		Michigan	
	Number	Percent	Number	Percent
Male	657,140	(72.8%)	19,564	71.6%
Female	244,913	(27.2%)	7,752	28.4%
Total	902,053	(100.0%)	27,316	100.0%

Source: AMA Physician Characteristics and Distribution in the US, 2007

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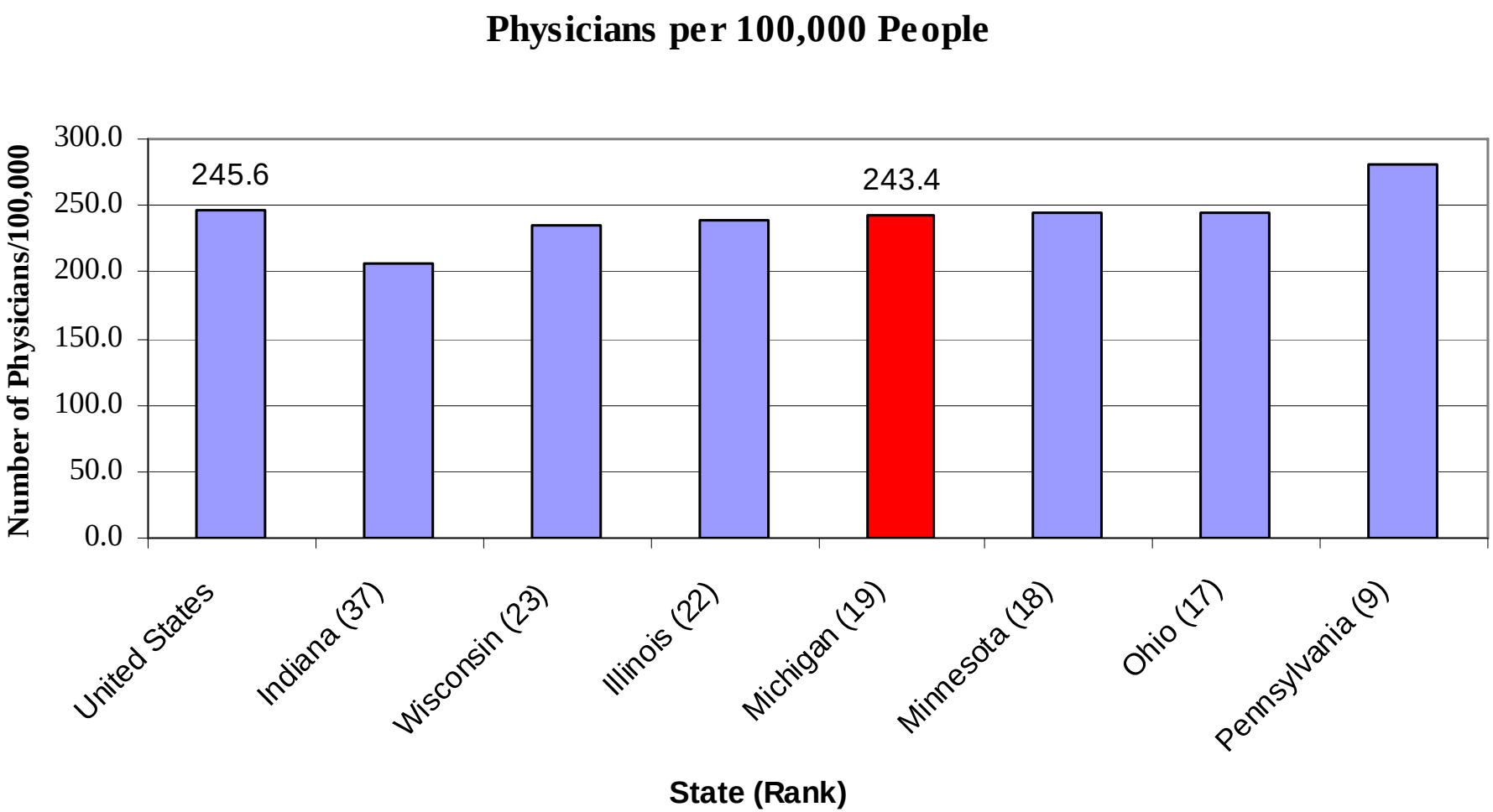
Physicians Per Capita (2005)



Sources: AMA Physician MasterFile, January 2005; U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

*Includes active, federal and non-federal physicians who are not in graduate medical training/fellowship and are residing in the 50 States or District of Columbia.

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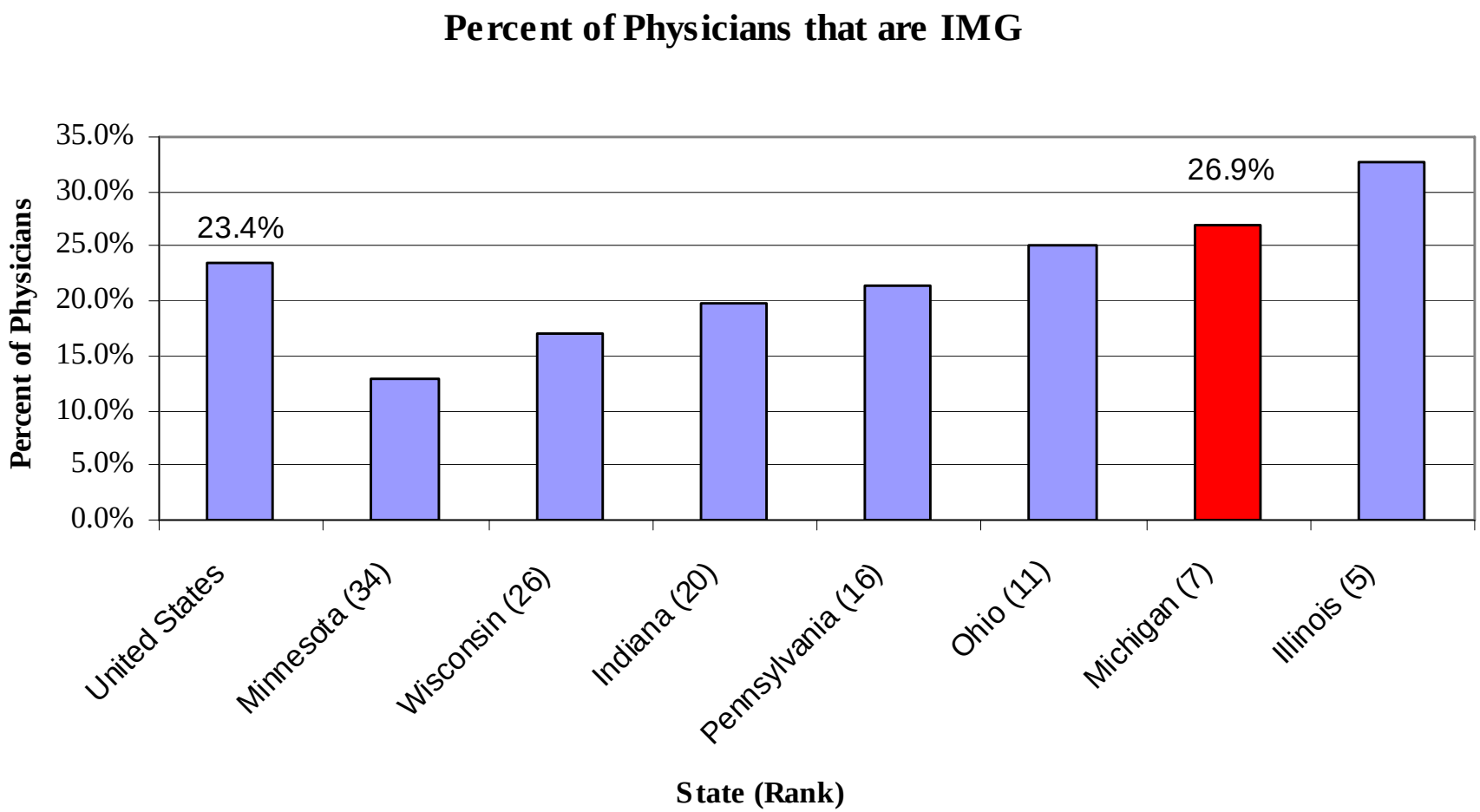
IMGs as a Percentage of Active Physicians (2005)



AMA Physician MasterFile, January 2005

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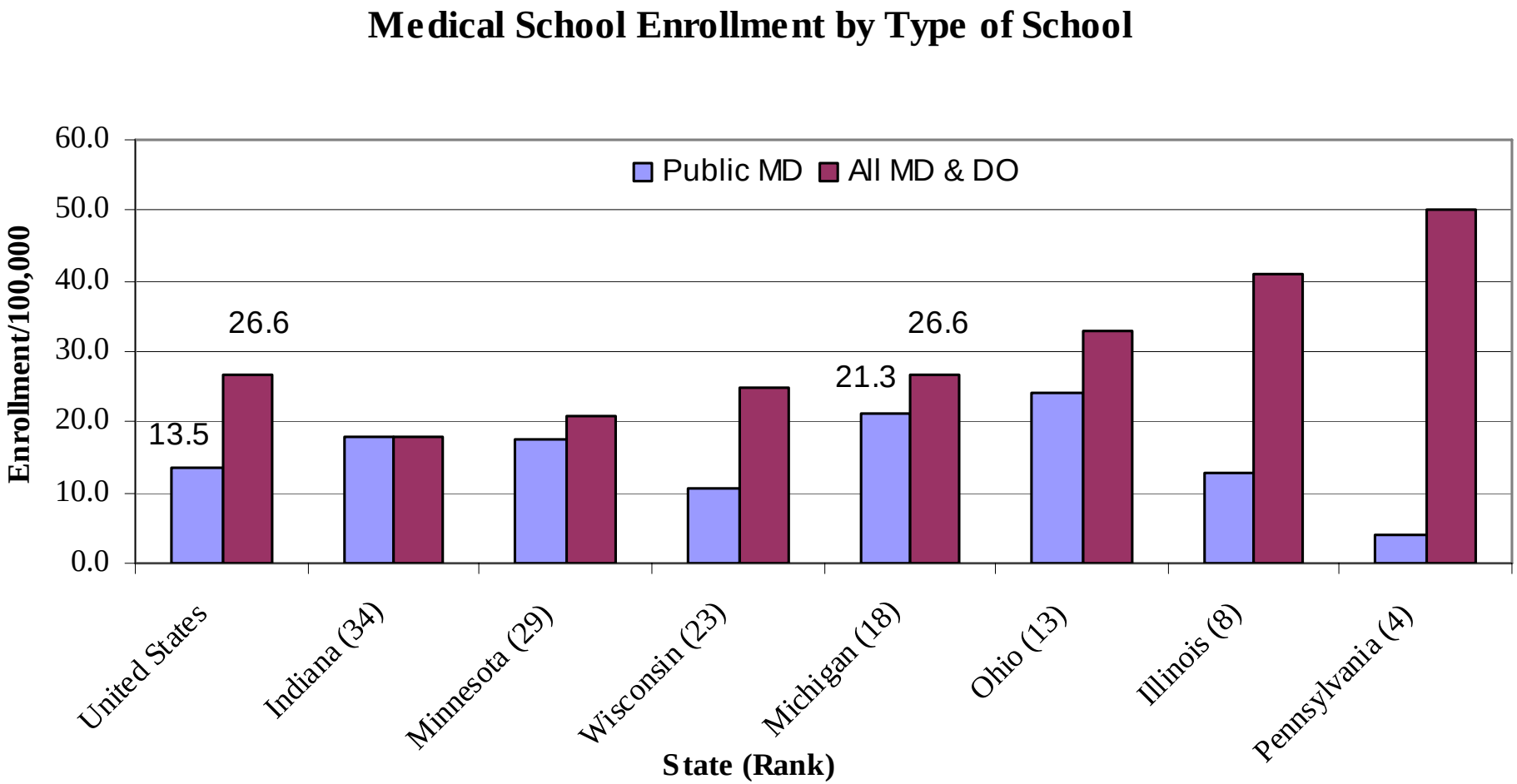
Medical School Enrollment Per Capita (2003)



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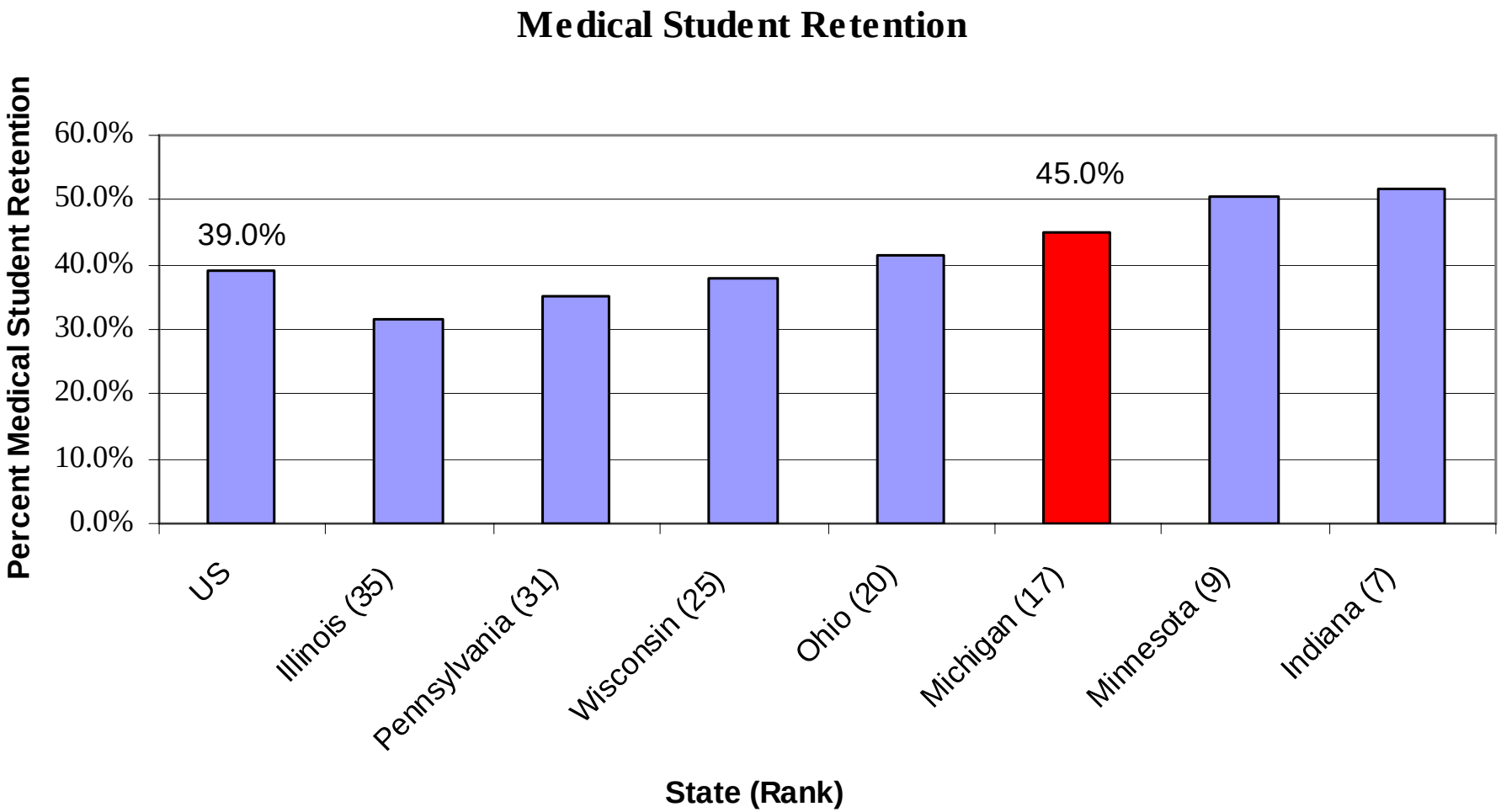
Medical Student Retention Rates (2005)



AMA Masterfile data: Includes DO, MD

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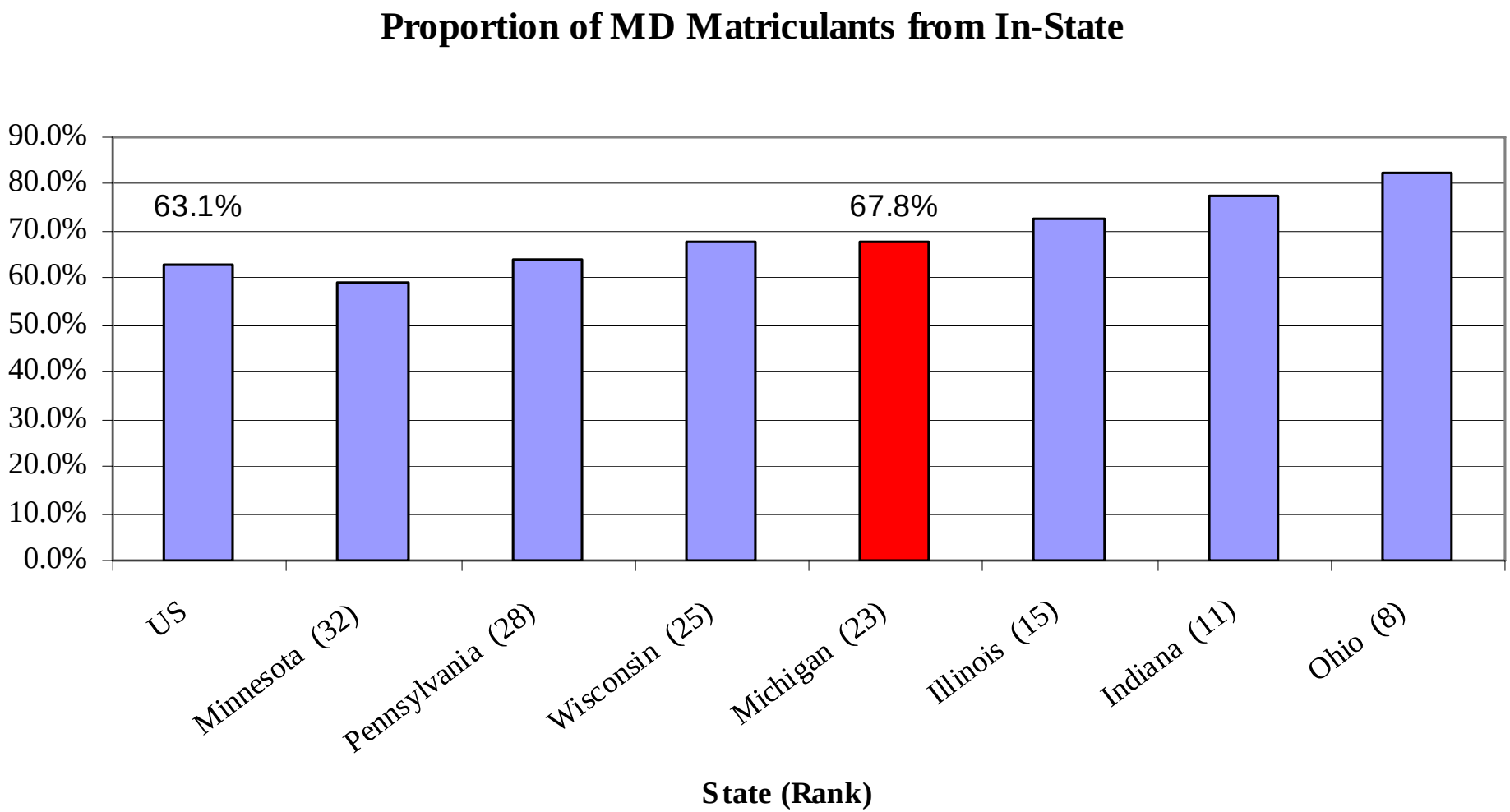
Proportion of MD Matriculants from In-State (2004)



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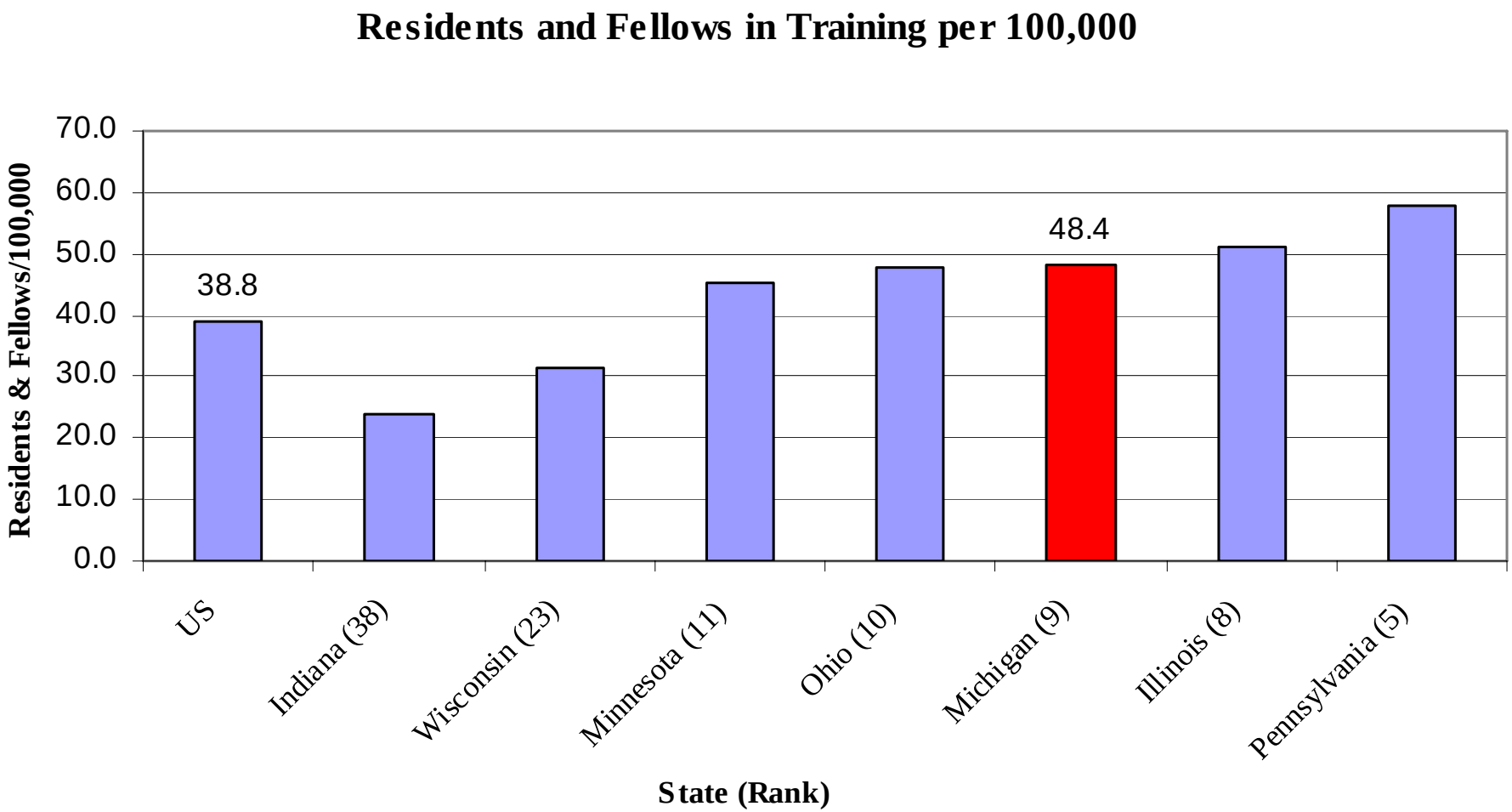
Residents and Fellows in Training Per Capita (2005)



AMA Physician MasterFile, January 2005

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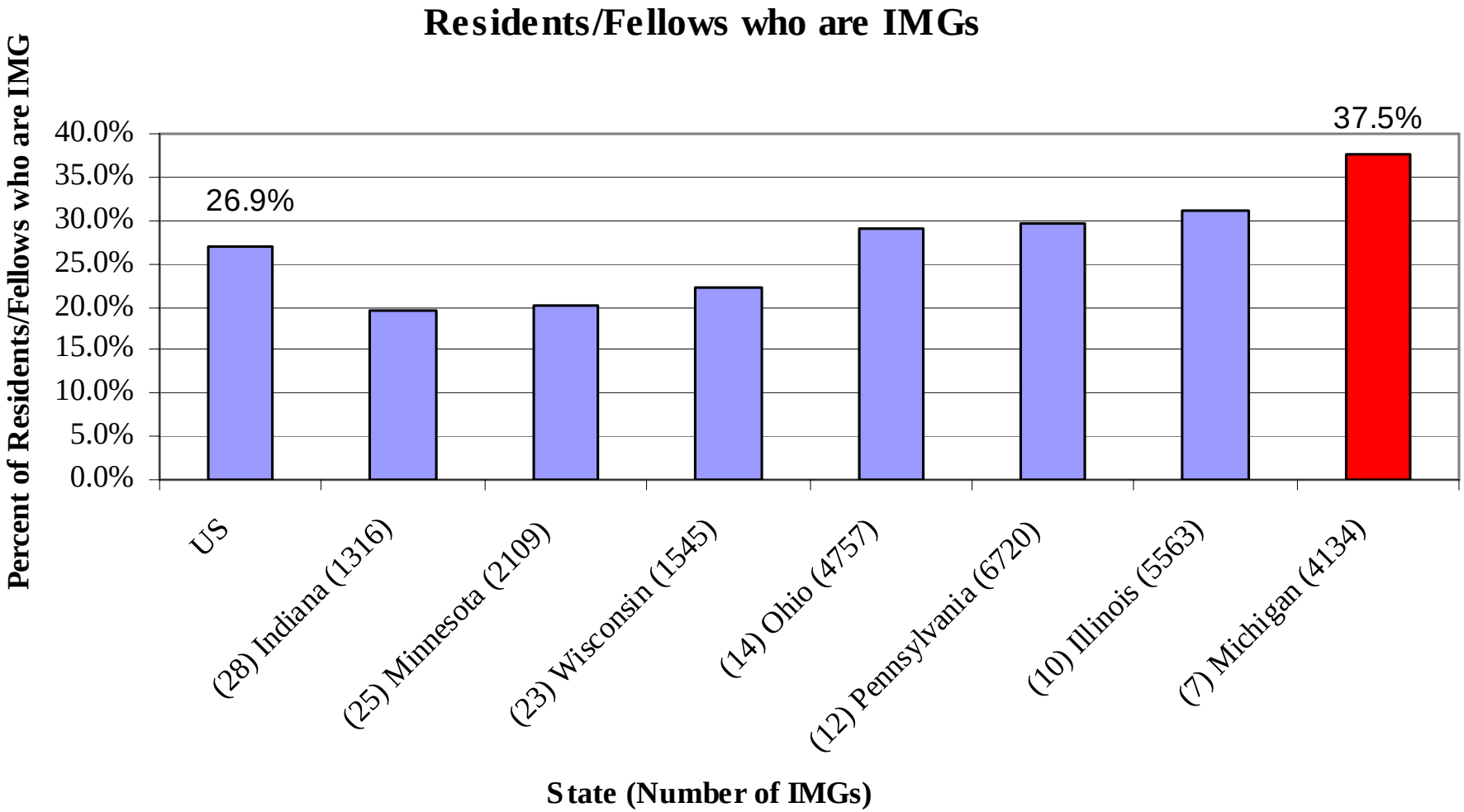
Residents/Fellows who are IMGs (2004)



AMA Physician MasterFile, January 2005

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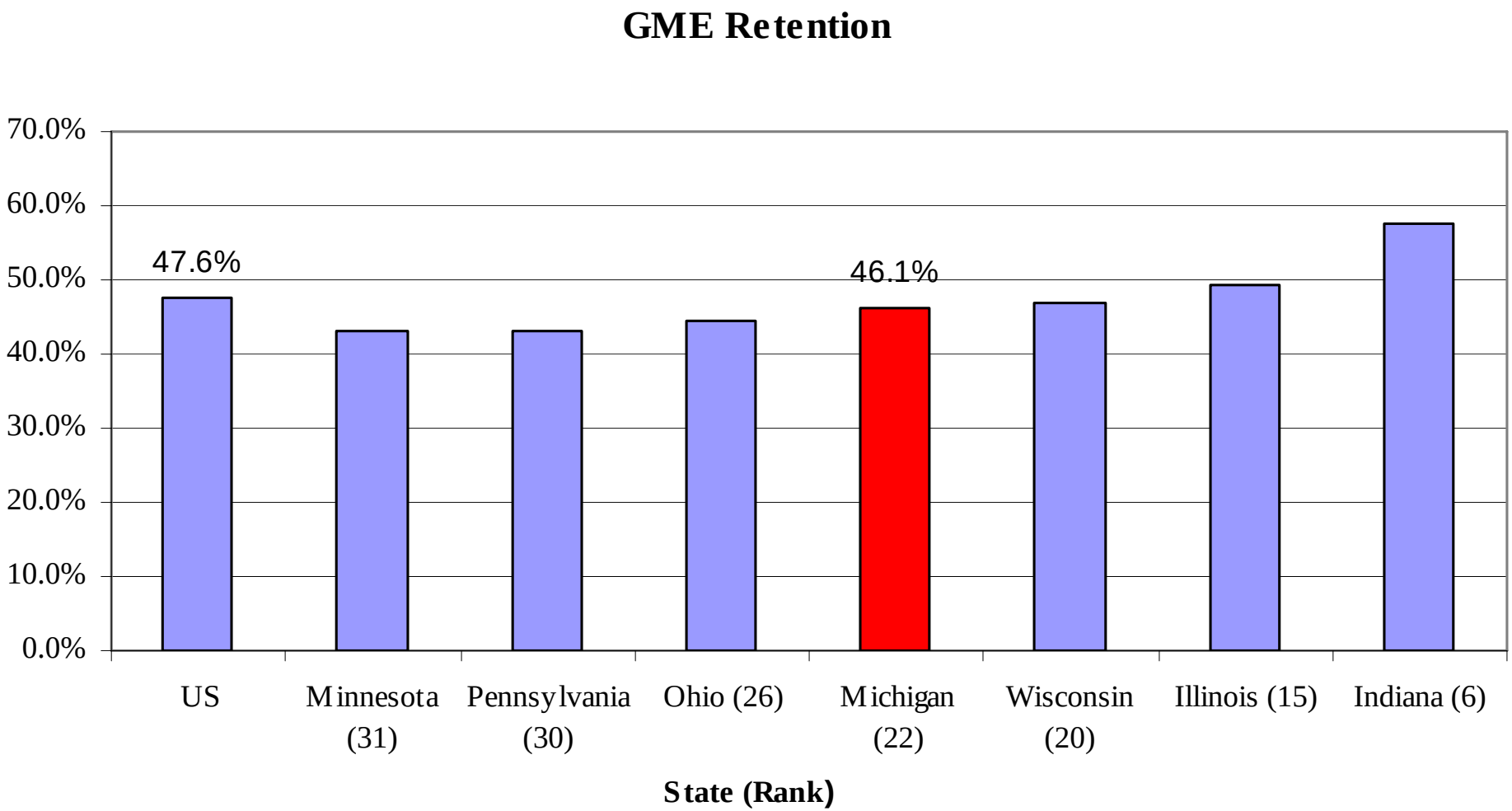
GME Retention (2005)



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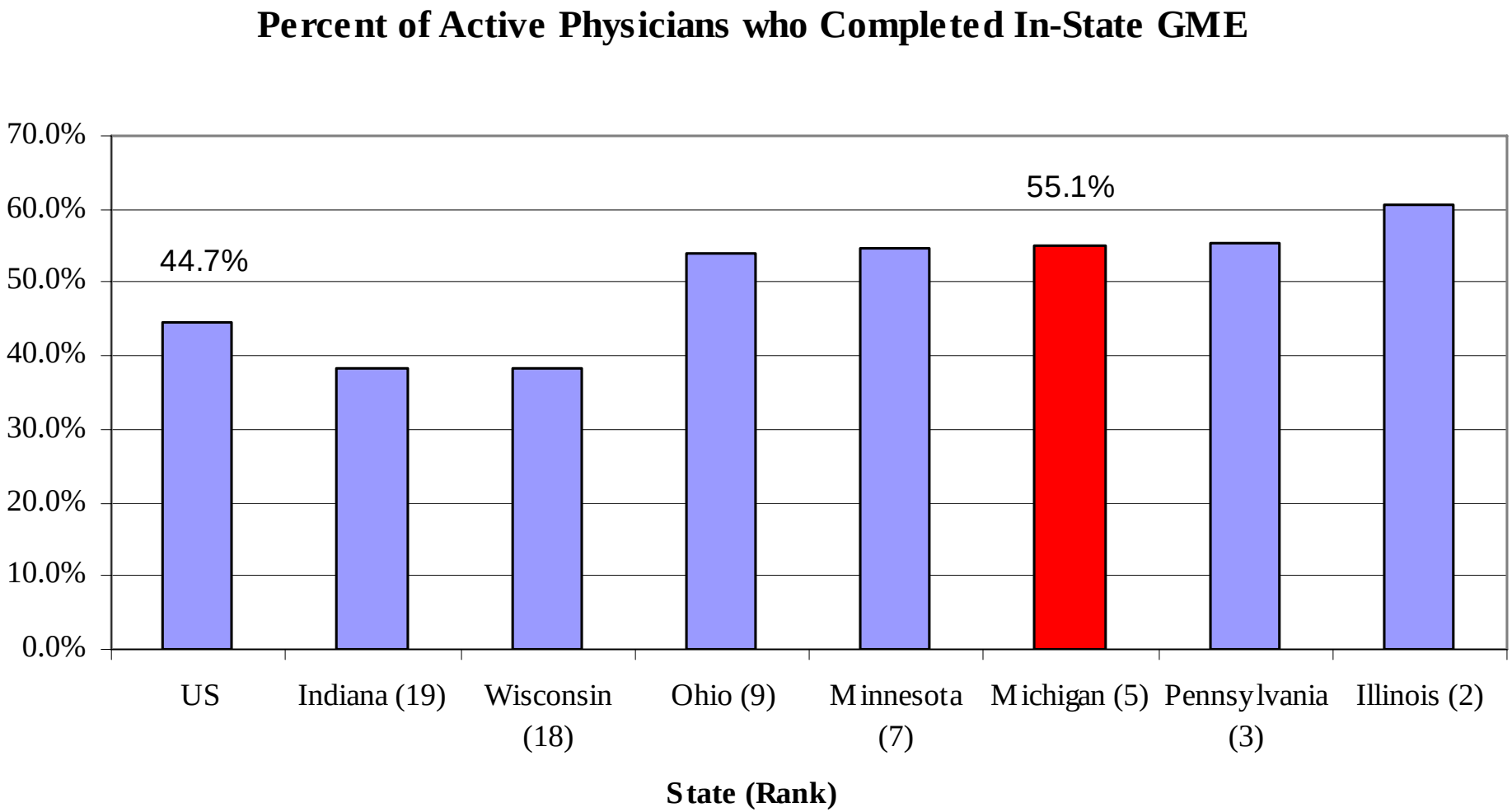
Proportion of Active Physicians who Completed In-State GME (2005)



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Mean Scores for Applicants (2006)

State	Verbal	Physical	Biological	Writing (Median)	Science GPA	GPA Total	Total Applicants
Illinois	9	9.1	9.4	O	3.34	3.45	1,844
Indiana	9.2	9.1	9.5	O	3.46	3.57	702
Michigan	8.9	9.3	9.7	O	3.37	3.48	1,347
Minnesota	9.3	9.4	9.7	P	3.42	3.52	761
Ohio	9	9	9.4	O	3.41	3.52	1,485
PA	9.2	9.3	9.7	P	3.4	3.5	1,423
Wisconsin	9.4	9.4	9.9	P	3.49	3.57	680
All Applicants	9	9.1	9.5	O	3.38	3.48	39,108

Source: AAMC: Data Warehouse: Applicant Matriculant File as of 10/27/2006

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Matriculant Data by State (2006)

		Matriculation Status					
		Matriculated In State		Matriculated Out of State		NOT Matriculated	
Applicants by State	Applicants	N	%	N	%	N	%
Illinois	1,844	627	34	216	11.7	1,001	54.3
Indiana	702	240	34.2	90	12.8	372	53.0
Michigan	1,347	394	29.3	212	15.7	741	55.0
Minnesota	761	193	25.4	132	17.3	436	57.3
Ohio	1,485	565	38	147	9.9	773	52.0
PA	1,423	438	30.8	237	16.7	748	52.6
Wisconsin	680	213	31.3	104	15.3	363	53.4
All Applicants	*39,108*	*10,823*	*27.7*	*6,547*	*16.7*	*21,738*	*55.6*

Source: AAMC: Data Warehouse: Applicant Matriculant File as of 10/27/2006

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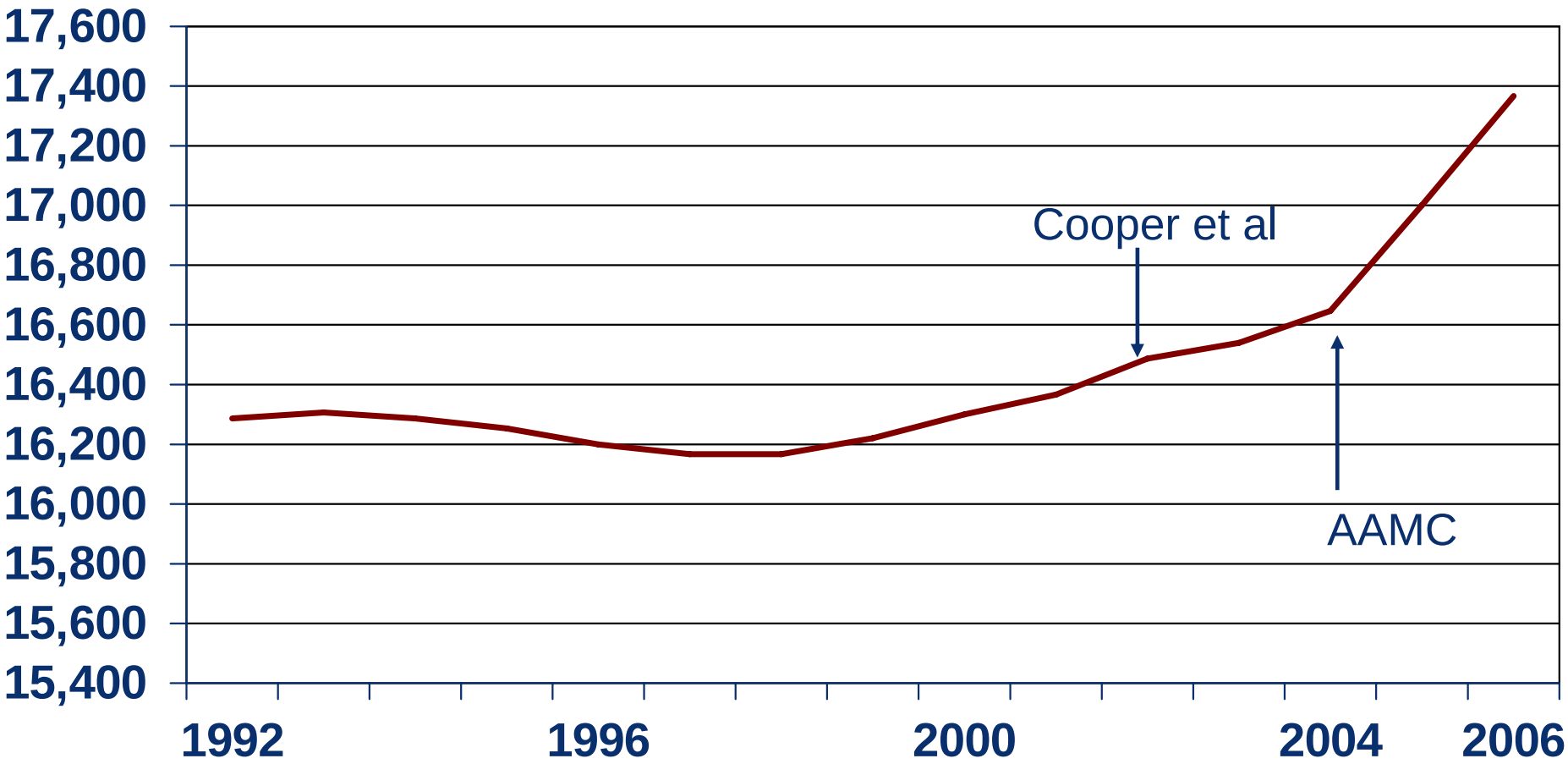
US Medical School Matriculants



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Medical Schools Under Discussion/Development

- Touro — Florham Park, NJ
- Florida International — Miami, FL
- Central Florida — Orlando, FL
- Texas Tech — El Paso, TX
- Univ. of California — Riverside, CA
- Univ. of California — Merced, CA
- Univ. of Arizona — Phoenix, AZ
- Florida Atlantic — Boca Raton, FL
- UMDNJ — Camden, NJ
- Northeast Pennsylvania — Scranton, PA
- Memorial Health — Savannah, GA
- VA Tech — Roanoke, VA

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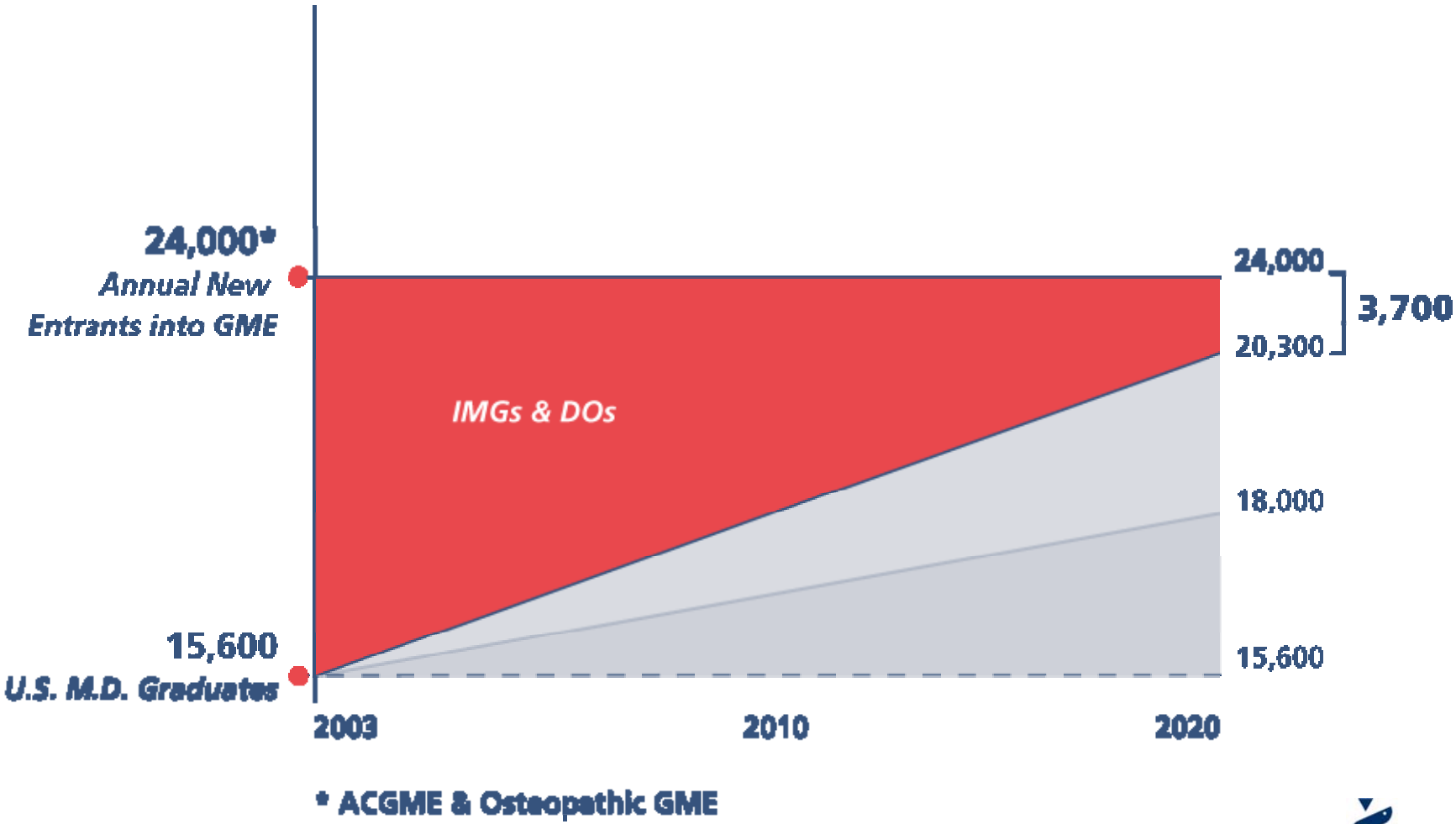
UME Expansion Will Not Expand the Workforce Without Added GME Training



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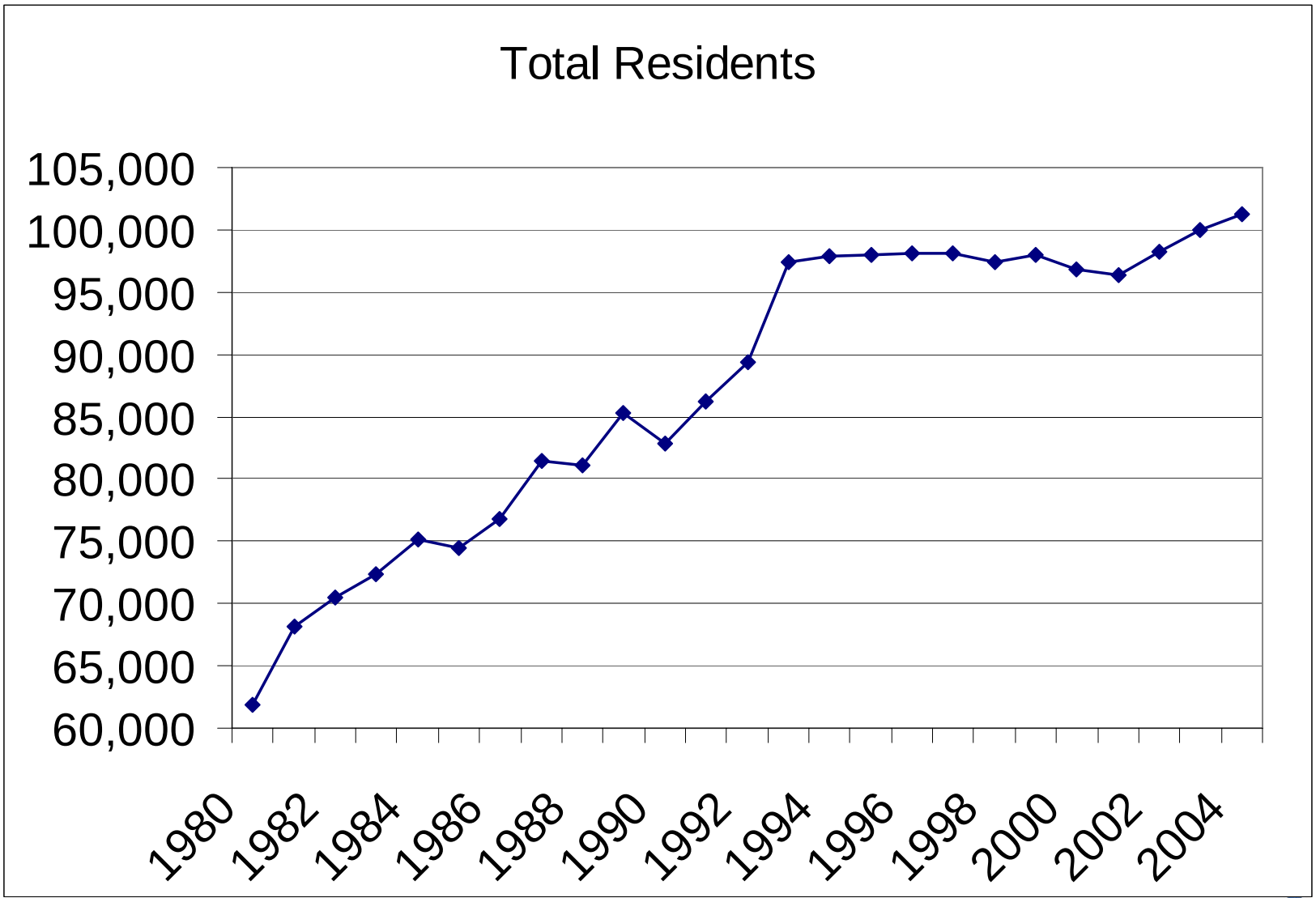
Growth in GME Slots, 1980--2005



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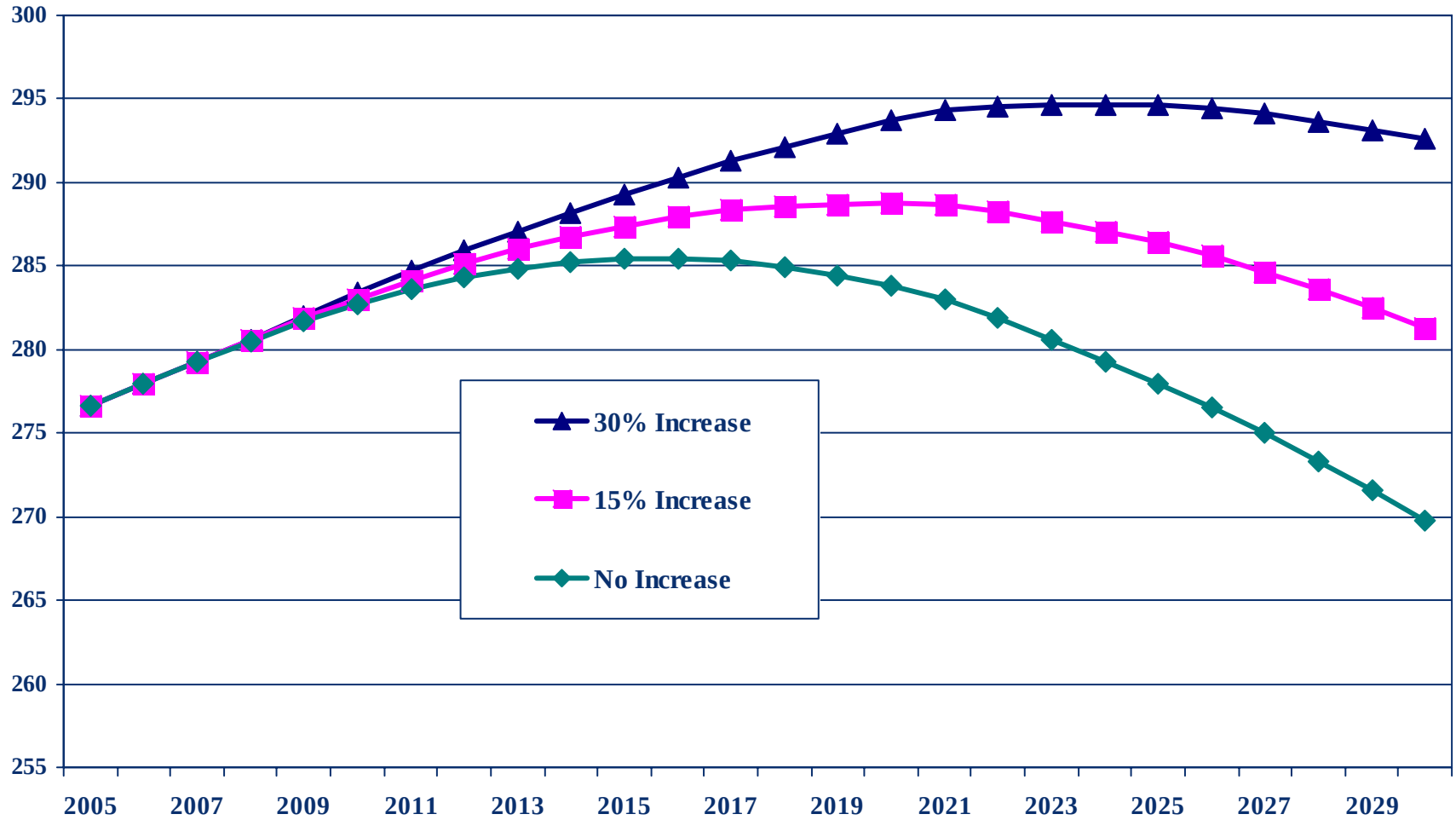
Active Physicians per 100,000 Pop 2005 –2030
With and Without an Increase in MD Enrollment



Includes residents and fellows.

Prepared by Center for Workforce Studies, AAMC, Mar 2006.

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